Analytical Data Package Prepared For

Pacific Northwest National Lab

Radiochemical Analysis By

STL Richland STLRL

2800 G.W. Way, Richland Wa, 99354, (509)-375-3131.

Data Package Contains _____ Pages

Report Nbr: 33250

SDG Nbr	ORDER Nbr	CLIENT ID NUMBER	LOT Nbr	WORK ORDER	RPT DB ID	BATCH
W04971	W06-007	B1JLJ8	J6G260132-1	H91MC2AA	9H91MC20	6237250
		B1JLK1	J6G260132-2	H91MR2AA	9H91MR20	6237250
		B1JLH6	J6G310193-1	JAC4R2AA	9JAC4R20	6237250
		B1JLH9	J6G310193-2	JAC4T2AA	9JAC4T20	6237250
	I06-055	B1K649	J6H010297-1	JAE5J1AA	9JAE5J10	6215544
		B1K649	J6H010297-1	JAE5J1AC	9JAE5J10	6215539
	S06-007	B1JLB1	J6H010299-1	JAE531AA	9JAE5310	6215544
		B1JLB1	J6H010299-1	JAE531AC	9JAE5310	6215552
		B1JLB1	J6H010299-1	JAE531AD	9JAE5310	6215554
	W06-008	B1K2Y1	J6H010301-1	JAE591AA	9JAE5910	6215544
		B1K2Y1	J6H010301-1	JAE591AC	9JAE5910	6215539
		B1K2Y5	J6H010301-2	JAE6C1AA	9JAE6C10	6215544
		B1K2Y5	J6H010301-2	JAE6C1AC	9JAE6C10	6215539
		B1K2Y9	J6H010301-3	JAE6D1AA	9JAE6D10	6215544
		B1K2Y9	J6H010301-3	JAE6D1AC	9JAE6D10	6215550

Comments:

Report Nbr: 33250

SDG Nbr	ORDER Nbr	CLIENT ID NUMBER	LOT Nbr	WORK ORDER	RPT DB ID	BATCH
W04971	W06-008	B1K2Y9	J6H010301-3	JAE6D1AD	9JAE6D10	6215539
		B1K2W3	J6H010301-4	JAE6K1AA	9JAE6K10	6215544
		B1K2W3	J6H010301-4	JAE6K1AC	9JAE6K10	6215550
		B1K2W3	J6H010301-4	JAE6K1AD	9JAE6K10	6215539
		B1K2W7	J6H010301-5	JAE6R1AC	9JAE6R10	6215550
		B1K2W7	J6H010301-5	JAE6R1AD	9JAE6R10	6215539
		B1K2W7	J6H010301-5	JAE6R1AE	9JAE6R10	6215544
		B1K303	J6H010301-6	JAE6T1AA	9JAE6T10	6215544
		B1K303	J6H010301-6	JAE6T1AC	9JAE6T10	6215550
		B1K303	J6H010301-6	JAE6T1AD	9JAE6T10	6215539
	G06-007	B1JK54	J6H010303-1	JAE6W1AA	9JAE6W10	6215544
		B1JK54	J6H010303-1	JAE6W1AC	9JAE6W10	6215552
		B1JK54	J6H010303-1	JAE6W1AD	9JAE6W10	6215554
		B1JK54	J6H010303-1	JAE6W1AE	9JAE6W10	6215556
		B1JK54	J6H010303-1	JAE6W1AF	9JAE6W10	6215555
		B1JK58	J6H010303-2	JAE6X1AA	9JAE6X10	6215544
		B1JK58	J6H010303-2	JAE6X1AC	9JAE6X10	6215552
		B1JK58	J6H010303-2	JAE6X1AD	9JAE6X10	6215554
		B1JK58	J6H010303-2	JAE6X1AE	9JAE6X10	6215556
		B1JK58	J6H010303-2	JAE6X1AF	9JAE6X10	6215555
	I06-055	B1K657	J6H010305-1	JAE611AA	9JAE6110	6215544
		B1K657	J6H010305-1	JAE611AC	9JAE6110	6215550
		B1K657	J6H010305-1	JAE611AD	9JAE6110	6215539
		B1K688	J6H010305-2	JAGEM1AA	9JAGEM10	6215544
		B1K688	J6H010305-2	JAGEM1AC	9JAGEM10	6215550
		B1K688	J6H010305-2	JAGEM1AD	9JAGEM10	6215539

Comments:

Report Nbr: 33250

SDG Nbr	ORDER Nbr	CLIENT ID NUMBER	LOT Nbr	WORK ORDER	RPT DB ID	BATCH
W04971	I06-054	B1K542	J6H010306-1	JAE651AA	9JAE6510	6215550
		B1K542	J6H010306-1	JAE652AC	9JAE6520	6237250
		B1K543	J6H010306-2	JAE661AA	9JAE6610	6215550
		B1K543	J6H010306-2	JAE662AC	9JAE6620	6237250
	W06-008	B1K2X7	J6H010307-1	JAE671AA	9JAE6710	6215544
		B1K2X7	J6H010307-1	JAE671AC	9JAE6710	6215539
		B1K307	J6H010307-2	JAE681AA	9JAE6810	6215539

Comments:

SEVERN TRENT STL

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Certificate of Analysis

Pacific Northwest National Laboratories
Sigma V Building
Richland, WA 99352

September 15, 2006

Attention: Dot Stewart

SAF Number	:	W06-007, I06-055, S06-007, W06-008, G06-007, I06-054
Date SDG Closed	:	August 1. 2006
Number of Samples	:	Twenty (20)
Sample Type	:	Water
SDG Number	:	W04971
Data Deliverable	:	45-Day / Summary

CASE NARRATIVE

I. Introduction

Between July 25, 2006 and August 1, 2006, twenty water samples were received at STL Richland (STLR) for radiochemical analysis. Upon receipt, the samples were assigned the following laboratory ID numbers to correspond with the Pacific Northwest National Laboratories (PGW) specific IDs:

PGW ID#	STLR ID#	MATRIX	DATE OF RECEIPT
B1JLJ8	H91MC	WATER	7/25/06
B1JLK1	H91MR	WATER	7/25/06
B1JLH6	JAC4R	WATER	7/31/06
B1JLH9	JAC4T	WATER	7/31/06
B1K649	JAE5J	WATER	8/01/06
B1JLB1	JAE53	WATER	8/01/06
B1K2Y1	JAE59	WATER	8/01/06
B1K2Y5	JAE6C	WATER	8/01/06
B1K2Y9	JAE6D	WATER	8/01/06
B1K2W3	JAE6K	WATER	8/01/06
B1K2W7	JAE6R	WATER	8/01/06
B1K303	JAE6T	WATER	8/01/06
B1JK54	JAE6W	WATER	8/01/06

B1JK58	JAE6X	WATER	8/01/06
B1K657	JAE61	WATER	8/01/06
B1K688	JAGEM	WATER	8/01/06
B1K542	JAE65	WATER	8/01/06
B1K543	JAE66	WATER	8/01/06
B1K2X7	JAE67	WATER	8/01/06
B1K307	JAE68	WATER	8/01/06

II. Sample Receipt

The samples were received in good condition and no anomalies were noted during check-in.

III. Analytical Results/Methodology

The analytical results for this report are presented by laboratory sample ID. Each set of data includes sample identification information, analytical results and the appropriate associated statistical errors.

The requested analyses were:

Gas Proportional Counting
Gross Alpha by method RICH-RC-5014
Gross Beta by method RICH-RC-5014
Strontium-90 by method RICH-RC-5006
Gamma Spectroscopy
Gamma Spec by method RICH-RC-5017
Iodine-129 (LL) by method RICH-RC-5025
Liquid Scintillation Counting
Technetium-99 by TEVA method RICH-RC-5065
Tritium by method RICH-RC-5007
Laser Induced Phosphorimetry
Total Uranium by method RICH-RC-5058

IV. Quality Control

The analytical results for each analysis performed includes a minimum of one laboratory control sample (LCS), one method (reagent) blank, and one duplicate sample analysis. Any exceptions have been noted in the "Comments" section.

QC and sample results are reported in the same units.

V. Comments

Gas Proportional Counting

Gross Alpha by method RICH-RC-5014:
Samples B1JLB1, B1JK54, B1JK58 and B1JK58 DUP were analyzed with reduced volumes due to weight screen activity. B1JK54 does not meet the CRDL. Except as noted, the LCS, batch blank, samples and sample duplicate (B1JK58) results are within contractual requirements.

Gross Beta by method RICH-RC-5014:
A reduced volume was analyzed based on an elevated screen result for sample B1JK54. Except as noted the LCS, batch blank, samples and sample duplicate (B1JLB1) results are within contractual requirements.

Strontium-90 by method RICH-RC-5006
The MDA was elevated for samples B1JK54 and B1JK54 DUP due to the reduced aliquot size. The aliquot size was reduced on B1JK54 and B1JK54 DUP due to elevated activity screen results. Except as noted the LCS, batch blank, samples and sample duplicate (B1F9D9) results are within contractual requirements.

Gamma Spectroscopy

Gamma Spec by method RICH-RC-5017:
The LCS, batch blank, samples and sample duplicate (B1JK54) results are within contractual requirements.

Iodine-129 (LL) by method RICH-RC-5025:
The LCS, batch blank, samples and sample duplicate (B1K2Y9) results are within contractual requirements.

Liquid Scintillation Counting

Technetium-99 by TEVA method RICH-RC-5065:
The LCS, batch blank, samples, sample duplicate (B1K649), and sample matrix spike (B1K2X7) results are within contractual requirements.

Tritium by method RICH-RC-5007:
The LCS, batch blank, samples and sample duplicate (B1K657) results are within contractual requirements.

Total Uranium

Total Uranium by method RICH-RC-5058:
The samples were reanalyzed because the original batch blank was just at CRDL and there were some high samples. The reanalysis batch had acceptable results. Except as noted, the LCS, batch blank, samples, sample duplicate (B1JLJ8), and sample matrix spike (B1JLK1) results are within contractual requirements.

Pacific Northwest National Laboratories
September 15, 2006

I certify that this Certificate of Analysis is in compliance with the SOW, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hard copy data package has been authorized by the Laboratory Manager, or a designee as verified by the following signature.

Reviewed and approved:

Sandra Segen

Sherryl A. Adam
for Project Manager

Drinking Water Method Cross References

	DRINKING WATER ASTM METHOD CROSS REFERENCES	
Referenced Method	**Isotope(s)**	**STL Richland's SOP number**
EPA 901.1	Cs-134, I-131	RICH-RC-5017
EPA 900.0	Alpha & Beta	RICH-RC-5014
EPA 903.1	Ra-226	RICH-RC-5005
EPA 904.0	Ra-228	RICH-RC-5005
EPA 905.0	Sr89/90	RICH-RC-5006
ASTM D2460	Total Radium	RICH-RC-5027
Standard Method 7500-U-C & ASTM D5174	Uranium	RICH-RC-5058
EPA 906.0	Tritium	RICH-RC-5007
NOTE:		
The Gross Alpha LCS is prepared with Am-241 (unless otherwise specified in the case narrative)		
The Gross Beta LCS is prepared with Sr/Y-90 (unless otherwise specified in the case narrative)		

Uncertainty Estimation

STL Richland has adopted the internationally accepted approach to estimating uncertainties described in "NIST Technical Note 1297, 1994 Edition". The approach, "Law of Propagation of Errors", involves the identification of all variables in an analytical method which are used to derive a result. These variables are related to the analytical result (R) by some functional relationship, R = constants * f(x,y,z,...). The components (x,y,z) are evaluated to determine their contribution to the overall method uncertainty. The individual component uncertainties (u_i) are then combined using a statistical model that provides the most probable overall uncertainty value. All component uncertainties are categorized as type A, evaluated by statistical methods, or type B, evaluated by other means. Uncertainties not included in the components, such as sample homogeneity, are combined with the component uncertainty as the square root of the sum-of-the-squares of the individual uncertainties. The uncertainty associated with the derived result is the combined uncertainty (u_c) multiplied by the coverage factor (1,2, or 3).

When three or more sample replicates are used to derive the analytical result, the type A uncertainty is the standard deviation of the mean value (S/vn), where S is the standard deviation of the derived results. The type B uncertainties are all other random or non-random components that are not included in the standard deviation.

The derivation of the general "Law of Propagation of Errors" equations and specific example are available on request.

Report Definitions

Action Lev	An agreed upon activity level used to trigger some action when the final result is greater than or equal to the Action Level. Often the Action Level is related to the Decision Limit.
Batch	The QC preparation batch number that relates laboratory samples to QC samples that were prepared and analyzed together.
Bias	Defined by the equation (Result/Expected)-1 as defined by ANSI N13.30.
COC No	Chain of Custody Number assigned by the Client or STL Richland.
Count Error (#s)	Poisson counting statistics of the gross sample count and background. The uncertainty is absolute and in the same units as the result. For Liquid Scintillation Counting (LSC) the batch blank count is the background.
Total Uncert (#s) ***u_c Combined Uncertainty.***	All known uncertainties associated with the preparation and analysis of the sample are propagated to give a measure of the uncertainty associated with the result, ***u_c the combined uncertainty.*** The uncertainty is absolute and in the same units as the result.
(#s), Coverage Factor	The coverage factor defines the width of the confidence interval, 1, 2 or 3 standard deviations.
CRDL (RL)	Contractual Required Detection Limit as defined in the Client's Statement Of Work or STL Richland "default" nominal detection limit. Often referred to the reporting level (RL)
Lc	Decision Level based on instrument background or blank, adjusted by the Efficiency, Chemical Yield, and Volume associated with the sample. The Type I error probability is approximately 5%. Lc=(1.645 * Sqrt(2*(BkgrndCnt/BkgrndCntMin)/SCntMin)) * (ConvFct/(Eff*Yld*Abn*Vol) * IngrFct). For LSC methods the batch blank is used as a measure of the background variability. Lc cannot be calculated when the background count is zero.
Lot-Sample No	The number assigned by the LIMS software to track samples received on the same day for a given client. The sample number is a sequential number assigned to each sample in the Lot.
MDC|MDA	Detection Level based on instrument background or blank, adjusted by the Efficiency, Chemical Yield, and Volume with a Type I and II error probability of approximately 5%. MDC = (4.65 * Sqrt((BkgrndCnt/BkgrndCntMin)/SCntMin) + 2.71/SCntMin) * (ConvFct/(Eff * Yld * Abn * Vol) * IngrFct). For LSC methods the batch blank is used as a measure of the background variability.
Primary Detector	The instrument identifier associated with the analysis of the sample aliquot.
Ratio U-234/U-238	The U-234 result divided by the U-238 result. The U-234/U-238 ratio for natural uranium in NIST SRM 4321C is 1.038.
Rst/MDC	Ratio of the Result to the MDC. A value greater than 1 may indicate activity above background at a high level of confidence. Caution should be used when applying this factor and it should be used in concert with the qualifiers associated with the result.
Rst/TotUcert	Ratio of the Result to the Total Uncertainty. If the uncertainty has a coverage factor of 2 a value greater than 1 may indicate activity above background at approximately the 95% level of confidence assuming a two-sided confidence interval. Caution should be used when applying this factor and it should be used in concert with the qualifiers associated with the result.
Report DB No	Sample Identifier used by the report system. The number is based upon the first five digits of the **Work Order** Number.
RER	The equation Replicate Error Ratio = (S-D)/[sqrt($TPUs^2$ + $TPUd^2$)] as defined by ICPT BOA where S is the original sample result, D is the result of the duplicate, TPUs is the total uncertainty of the original sample and TPUd is the total uncertainty of the duplicate sample.
SDG	Sample Delivery Group Number assigned by the Client or assigned by STL Richland upon sample receipt.
Sum Rpt Alpha Spec Rst(s)	The sum of the reported alpha spec results for tests derived from the same sample excluding duplicate result where the results are in the same units.
Work Order	The LIMS software assign test specific identifier.
Yield	The recovery of the tracer added to the sample such as Pu-242 used to trace a Pu-239/40 method.

STL Richland Report

Lab Code: STLRL

FormNbr: R FormatType: FEAD Version: 05 Rpt Nbr: 33250 File Name: h:\Reportdb\edd\FeadIV\Rad\W04971.Edd, h:\Reportdb\edd\FeadIV\Rad\33250.Edd

Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/ Solids%*:	Distilled Volume	Sample On Date:	Collection Date:
9H91MC20	B1JLJ8		MW6-SBB-A1	W06-007	W04971					07/25/2006 10:01

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
6237250	Uranium	7440-61-1	5.48E+00	ug/L	5.6E-01	5.6E-01		8.38E-02		UTOT_KPA	2.50E-02	ML	09/05/2006 13:49	I

Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/ Solids%*:	Distilled Volume	Sample On Date:	Collection Date:
9H91MR20	B1JLK1		MW6-SBB-A1	W06-007	W04971					07/25/2006 11:20

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
6237250	Uranium	7440-61-1	9.82E-03	ug/L	1.2E-03	1.2E-03	U	8.35E-02		UTOT_KPA	2.51E-02	ML	09/05/2006 13:54	I

Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/ Solids%*:	Distilled Volume	Sample On Date:	Collection Date:
9JAC4R20	B1JLH6		MW6-SBB-A1	W06-007	W04971					07/31/2006 12:01

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
6237250	Uranium	7440-61-1	4.08E+01	ug/L	4.8E+00	4.8E+00		8.45E-02		UTOT_KPA	2.48E-02	ML	09/05/2006 13:59	I

Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/ Solids%*:	Distilled Volume	Sample On Date:	Collection Date:
9JAC4T20	B1JLH9		MW6-SBB-A1	W06-007	W04971					07/31/2006 13:25

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
6237250	Uranium	7440-61-1	5.10E+00	ug/L	5.2E-01	5.2E-01		8.35E-02		UTOT_KPA	2.51E-02	ML	09/05/2006 14:01	I

Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/ Solids%*:	Distilled Volume	Sample On Date:	Collection Date:
9JAE5310	B1JLB1		MW6-SBB-A1	S06-007	W04971					07/26/2006 08:38

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
6215544	H-3	10028-17-8	7.27E+02	pCi/L	1.6E+02	1.8E+02		3.33E+02	100.0	906.0_H3_LSC	5.00E-03	L	08/17/2006 04:56	I
6215552	ALPHA	12587-46-1	6.82E-01	pCi/L	1.2E+00	1.2E+00	U	2.56E+00	100.0	9310_ALPHABETA	1.852E-01	L	08/28/2006 17:49	I
6215554	BETA	12587-47-2	3.89E+01	pCi/L	3.1E+00	7.5E+00		2.55E+00	100.0	9310_ALPHABETA	1.997E-01	L	08/24/2006 16:31	I

Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/ Solids%*:	Distilled Volume	Sample On Date:	Collection Date:
9JAE5910	B1K2Y1		MW6-SBB-A1	W06-008	W04971					08/01/2006 09:31

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
6215544	H-3	10028-17-8	1.32E+03	pCi/L	1.8E+02	2.1E+02		3.31E+02	100.0	906.0_H3_LSC	5.00E-03	L	08/17/2006 06:19	I
6215539	TC-99	14133-76-7	2.51E+02	pCi/L	9.6E+00	2.3E+01		9.98E+00	100.0	TC99_ETVDSK_LS	1.253E-01	L	08/26/2006 11:41	I

Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/ Solids%*:	Distilled Volume	Sample On Date:	Collection Date:

U Qual - Analyzed for, but the result is less than the Mdc or gamma scan did not identify the nuclide.
J Qual - No U qualifier has been assigned and the result is below the Reporting Limit (CRDL).
B Qual- Analyte was found in the associated laboratory blank above the MDC.

Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/ Solids%*:	Distilled Volume	Sample On Date:	Collection Date:
9JAE5J10	B1K649		MW6-SBB-A1	I06-055	W04971					08/01/2006 11:52

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
6215544	H-3	10028-17-8	7.50E+03	pCi/L	3.2E+02	4.7E+02		3.31E+02	100.0	906.0_H3_LSC	5.00E-03	L	08/17/2006 03:33	I
6215539	TC-99	14133-76-7	1.44E+03	pCi/L	2.1E+01	1.1E+02		9.78E+00	100.0	TC99_ETVDSK_LS	1.255E-01	L	08/26/2006 11:41	I

Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/ Solids%*:	Distilled Volume	Sample On Date:	Collection Date:
9JAE6110	B1K657		MW6-SBB-A1	I06-055	W04971					08/01/2006 09:57

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
6215544	H-3	10028-17-8	5.62E+03	pCi/L	2.8E+02	3.9E+02		3.32E+02	100.0	906.0_H3_LSC	5.00E-03	L	08/17/2006 21:28	I
6215550	I-129L	15046-84-1	1.54E-01	pCi/L	1.4E-01	1.4E-01	U	2.94E-01	97.3	I129LL_SEP_LEPS	4.0024E+00	L	09/09/2006 13:03	I
6215539	TC-99	14133-76-7	1.09E+03	pCi/L	1.8E+01	8.3E+01		9.88E+00	100.0	TC99_ETVDSK_LS	1.266E-01	L	08/26/2006 11:42	I

Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/ Solids%*:	Distilled Volume	Sample On Date:	Collection Date:
9JAE6510	B1K542		MW6-SBB-A1	I06-054	W04971					08/01/2006 13:07

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
6215550	I-129L	15046-84-1	2.85E-02	pCi/L	1.0E-01	1.0E-01	U	2.04E-01	98.9	I129LL_SEP_LEPS	4.0023E+00	L	09/09/2006 13:04	I

Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/ Solids%*:	Distilled Volume	Sample On Date:	Collection Date:
9JAE6520	B1K542		MW6-SBB-A1	I06-054	W04971					08/01/2006 13:07

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
6237250	Uranium	7440-61-1	1.50E+00	ug/L	1.5E-01	1.5E-01		8.22E-02		UTOT_KPA	2.55E-02	ML	09/05/2006 14:03	I

Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/ Solids%*:	Distilled Volume	Sample On Date:	Collection Date:
9JAE6610	B1K543		MW6-SBB-A1	I06-054	W04971					08/01/2006 13:07

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
6215550	I-129L	15046-84-1	-1.48E-02	pCi/L	1.4E-01	1.4E-01	U	2.63E-01	96.5	I129LL_SEP_LEPS	4.0058E+00	L	09/09/2006 14:51	I

Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/ Solids%*:	Distilled Volume	Sample On Date:	Collection Date:
9JAE6620	B1K543		MW6-SBB-A1	I06-054	W04971					08/01/2006 13:07

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
6237250	Uranium	7440-61-1	9.13E-01	ug/L	9.3E-02	9.3E-02		8.25E-02		UTOT_KPA	2.54E-02	ML	09/05/2006 14:05	I

Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/ Solids%*:	Distilled Volume	Sample On Date:	Collection Date:
9JAE6710	B1K2X7		MW6-SBB-A1	W06-008	W04971					08/01/2006 10:37

U Qual - Analyzed for, but the result is less than the Mdc or gamma scan did not identify the nuclide.
J Qual - No U qualifier has been assigned and the result is below the Reporting Limit (CRDL).
B Qual- Analyte was found in the associated laboratory blank above the MDC.

STL Richland Report

Lab Code: STLRL

FormNbr: R FormatType: FEAD Version: 05 Rpt Nbr: 33250 File Name: h:\Reportdb\edd\FeadIV\Rad\W04971.Edd, h:\Reportdb\edd\FeadIV\Rad\33250.Edd

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
6215544	H-3	10028-17-8	3.95E+03	pCi/L	2.5E+02	3.2E+02		3.28E+02	100.0	906.0_H3_LSC	5.00E-03	L	08/18/2006 00:13	I
6215539	TC-99	14133-76-7	1.17E+02	pCi/L	7.2E+00	1.4E+01		1.00E+01	100.0	TC99_ETVDSK_LS	1.256E-01	L	08/26/2006 11:42	I

Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/ Solids%*:	Distilled Volume	Sample On Date:	Collection Date:
9JAE6810	B1K307		MW6-SBB-A1	W06-008	W04971					08/01/2006 13:07

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
6215539	TC-99	14133-76-7	5.92E+02	pCi/L	1.4E+01	4.7E+01		9.75E+00	100.0	TC99_ETVDSK_LS	1.273E-01	L	08/26/2006 11:42	I

Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/ Solids%*:	Distilled Volume	Sample On Date:	Collection Date:
9JAE6C10	B1K2Y5		MW6-SBB-A1	W06-008	W04971					08/01/2006 10:56

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
6215544	H-3	10028-17-8	3.99E+03	pCi/L	2.5E+02	3.2E+02		3.31E+02	100.0	906.0_H3_LSC	5.00E-03	L	08/17/2006 07:41	I
6215539	TC-99	14133-76-7	6.19E+02	pCi/L	1.4E+01	4.9E+01		9.97E+00	100.0	TC99_ETVDSK_LS	1.25E-01	L	08/26/2006 11:41	I

Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/ Solids%*:	Distilled Volume	Sample On Date:	Collection Date:
9JAE6D10	B1K2Y9		MW6-SBB-A1	W06-008	W04971					08/01/2006 12:16

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
6215544	H-3	10028-17-8	6.83E+03	pCi/L	3.1E+02	4.4E+02		3.31E+02	100.0	906.0_H3_LSC	5.00E-03	L	08/17/2006 09:04	I
6215550	I-129L	15046-84-1	3.76E-02	pCi/L	1.5E-01	1.5E-01	U	2.84E-01	101.1	I129LL_SEP_LEPS	3.9274E+00	L	09/09/2006 09:30	I
6215539	TC-99	14133-76-7	5.85E+02	pCi/L	1.4E+01	4.7E+01		9.81E+00	100.0	TC99_ETVDSK_LS	1.264E-01	L	08/26/2006 11:41	I

Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/ Solids%*:	Distilled Volume	Sample On Date:	Collection Date:
9JAE6K10	B1K2W3		MW6-SBB-A1	W06-008	W04971					08/01/2006 11:16

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
6215544	H-3	10028-17-8	4.49E+04	pCi/L	7.1E+02	2.0E+03		3.30E+02	100.0	906.0_H3_LSC	5.00E-03	L	08/17/2006 10:26	I
6215550	I-129L	15046-84-1	2.27E+00	pCi/L	4.4E-01	4.4E-01	U	7.06E-01	98.1	I129LL_SEP_LEPS	4.0025E+00	L	09/09/2006 11:17	I
6215539	TC-99	14133-76-7	8.87E+02	pCi/L	1.7E+01	6.8E+01		9.94E+00	100.0	TC99_ETVDSK_LS	1.248E-01	L	08/26/2006 11:41	I

Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/ Solids%*:	Distilled Volume	Sample On Date:	Collection Date:
9JAE6R10	B1K2W7		MW6-SBB-A1	W06-008	W04971					08/01/2006 10:19

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
6215544	H-3	10028-17-8	2.71E+03	pCi/L	2.2E+02	2.7E+02		3.30E+02	100.0	906.0_H3_LSC	5.00E-03	L	08/17/2006 11:49	I
6215550	I-129L	15046-84-1	-7.06E-03	pCi/L	1.1E-01	1.1E-01	U	2.14E-01	94.9	I129LL_SEP_LEPS	4.0013E+00	L	09/09/2006 11:18	I

U Qual - Analyzed for, but the result is less than the Mdc or gamma scan did not identify the nuclide.
J Qual - No U qualifier has been assigned and the result is below the Reporting Limit (CRDL).
B Qual- Analyte was found in the associated laboratory blank above the MDC.

6215539	TC-99	14133-76-7	3.41E+02	pCi/L	1.1E+01	3.0E+01		9.97E+00	100.0	TC99_ETVDSK_LS	1.247E-01	L	08/26/2006 11:41 I

Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/ Solids%*:	Distilled Volume	Sample On Date:	Collection Date:
9JAE6T10	B1K303		MW6-SBB-A1	W06-008	W04971					08/01/2006 09:15

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
6215544	H-3	10028-17-8	4.97E+03	pCi/L	2.7E+02	3.6E+02		3.28E+02	100.0	906.0_H3_LSC	5.00E-03	L	08/17/2006 13:12	I
6215550	I-129L	15046-84-1	-4.13E-02	pCi/L	1.1E-01	1.1E-01	U	1.99E-01	100.3	I129LL_SEP_LEPS	4.0021E+00	L	09/09/2006 13:02	I
6215539	TC-99	14133-76-7	1.72E+02	pCi/L	8.3E+00	1.8E+01		1.00E+01	100.0	TC99_ETVDSK_LS	1.254E-01	L	08/26/2006 11:42	I

Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/ Solids%*:	Distilled Volume	Sample On Date:	Collection Date:
9JAE6W10	B1JK54		MW6-SBB-A1	G06-007	W04971					07/26/2006 09:47

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
6215544	H-3	10028-17-8	4.99E+01	pCi/L	1.4E+02	1.5E+02	U	3.30E+02	100.0	906.0_H3_LSC	5.00E-03	L	08/17/2006 18:43	I
6215552	ALPHA	12587-46-1	3.60E+00	pCi/L	2.8E+00	2.8E+00		3.46E+00	100.0	9310_ALPHABETA	9.94E-02	L	08/28/2006 17:49	I
6215554	BETA	12587-47-2	8.71E+03	pCi/L	6.1E+01	1.2E+03		7.76E+00	100.0	9310_ALPHABETA	5.05E-02	L	08/24/2006 09:39	I
6215556	BE-7	13966-02-4	-1.49E+01	pCi/L	1.6E+01	1.6E+01	U	2.56E+01		GAMMA_GS	2.5022E+00	L	08/23/2006 09:05	I
6215556	CO-60	10198-40-0	9.34E-01	pCi/L	2.0E+00	2.0E+00	U	4.30E+00		GAMMA_GS	2.5022E+00	L	08/23/2006 09:05	I
6215556	CS-134	13967-70-9	1.84E-01	pCi/L	2.3E+00	2.3E+00	U	4.38E+00		GAMMA_GS	2.5022E+00	L	08/23/2006 09:05	I
6215556	CS-137	10045-97-3	-1.77E+00	pCi/L	1.9E+00	1.9E+00	U	2.99E+00		GAMMA_GS	2.5022E+00	L	08/23/2006 09:05	I
6215556	EU-152	14683-23-9	3.53E+00	pCi/L	5.2E+00	5.2E+00	U	9.97E+00		GAMMA_GS	2.5022E+00	L	08/23/2006 09:05	I
6215556	EU-154	15585-10-1	1.34E+00	pCi/L	4.7E+00	4.7E+00	U	1.02E+01		GAMMA_GS	2.5022E+00	L	08/23/2006 09:05	I
6215556	EU-155	14391-16-3	-4.19E+00	pCi/L	6.3E+00	6.3E+00	U	1.06E+01		GAMMA_GS	2.5022E+00	L	08/23/2006 09:05	I
6215556	K-40	13966-00-2	-1.31E+01	pCi/L	4.2E+01	4.2E+01	U	9.39E+01		GAMMA_GS	2.5022E+00	L	08/23/2006 09:05	I
6215556	RU-106	13967-48-1	-4.18E+00	pCi/L	1.7E+01	1.7E+01	U	3.04E+01		GAMMA_GS	2.5022E+00	L	08/23/2006 09:05	I
6215556	SB-125	14234-35-6	1.37E+00	pCi/L	5.6E+00	5.6E+00	U	8.97E+00		GAMMA_GS	2.5022E+00	L	08/23/2006 09:05	I
6215555	SR-90	10098-97-2	4.99E+03	pCi/L	3.4E+01	7.5E+02		2.17E+00	56.6	SRISO_SEP_PRE	5.016E-01	L	09/09/2006 12:22	I

Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/ Solids%*:	Distilled Volume	Sample On Date:	Collection Date:
9JAE6X10	B1JK58		MW6-SBB-A1	G06-007	W04971					07/26/2006 10:22

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
6215544	H-3	10028-17-8	-1.35E+02	pCi/L	1.3E+02	1.4E+02	U	3.31E+02	100.0	906.0_H3_LSC	5.00E-03	L	08/17/2006 20:05	I
6215552	ALPHA	12587-46-1	3.76E+00	pCi/L	2.0E+00	2.2E+00		2.16E+00	100.0	9310_ALPHABETA	1.282E-01	L	08/28/2006 17:49	I
6215554	BETA	12587-47-2	1.98E+03	pCi/L	2.1E+01	2.6E+02		2.92E+00	100.0	9310_ALPHABETA	2.004E-01	L	08/24/2006 17:38	I

U Qual - Analyzed for, but the result is less than the Mdc or gamma scan did not identify the nuclide.
J Qual - No U qualifier has been assigned and the result is below the Reporting Limit (CRDL).
B Qual- Analyte was found in the associated laboratory blank above the MDC.

6215556	BE-7	13966-02-4	-1.15E+01	pCi/L	1.1E+01	1.1E+01	U	1.77E+01		GAMMA_GS	2.4998E+00	L	08/23/2006	09:06 I
6215556	CO-60	10198-40-0	6.27E-01	pCi/L	1.2E+00	1.2E+00	U	2.64E+00		GAMMA_GS	2.4998E+00	L	08/23/2006	09:06 I
6215556	CS-134	13967-70-9	1.13E+00	pCi/L	1.4E+00	1.4E+00	U	2.86E+00		GAMMA_GS	2.4998E+00	L	08/23/2006	09:06 I
6215556	CS-137	10045-97-3	-1.32E+00	pCi/L	2.0E+00	2.0E+00	U	3.78E+00		GAMMA_GS	2.4998E+00	L	08/23/2006	09:06 I
6215556	EU-152	14683-23-9	-6.31E-02	pCi/L	2.8E+00	2.8E+00	U	5.07E+00		GAMMA_GS	2.4998E+00	L	08/23/2006	09:06 I
6215556	EU-154	15585-10-1	2.37E+00	pCi/L	5.0E+00	5.0E+00	U	1.00E+01		GAMMA_GS	2.4998E+00	L	08/23/2006	09:06 I
6215556	EU-155	14391-16-3	7.12E-01	pCi/L	2.7E+00	2.7E+00	U	5.11E+00		GAMMA_GS	2.4998E+00	L	08/23/2006	09:06 I
6215556	K-40	13966-00-2	-3.21E+01	pCi/L	2.2E+01	2.2E+01	U	4.61E+01		GAMMA_GS	2.4998E+00	L	08/23/2006	09:06 I
6215556	RU-106	13967-48-1	5.93E+00	pCi/L	1.2E+01	1.2E+01	U	2.29E+01		GAMMA_GS	2.4998E+00	L	08/23/2006	09:06 I
6215556	SB-125	14234-35-6	2.35E+00	pCi/L	3.1E+00	3.1E+00	U	6.12E+00		GAMMA_GS	2.4998E+00	L	08/23/2006	09:06 I
6215555	SR-90	10098-97-2	8.68E+02	pCi/L	5.6E+00	1.3E+02		5.41E-01	76.2	SRISO_SEP_PRE	1.0007E+00	L	09/09/2006	12:48 I

Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/ Solids%*:	Distilled Volume	Sample On Date:	Collection Date:
9JAGEM10	B1K688		MW6-SBB-A1	I06-055	W04971					08/01/2006 11:07

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
6215544	H-3	10028-17-8	4.99E+03	pCi/L	2.7E+02	3.7E+02		3.27E+02	100.0	906.0_H3_LSC	5.00E-03	L	08/18/2006 01:36	I
6215550	I-129L	15046-84-1	2.19E-01	pCi/L	1.3E-01	1.3E-01	U	3.14E-01	103.5	I129LL_SEP_LEPS	4.0081E+00	L	09/09/2006 14:53	I
6215539	TC-99	14133-76-7	3.01E+03	pCi/L	3.0E+01	2.2E+02		9.76E+00	100.0	TC99_ETVDSK_LS	1.258E-01	L	08/26/2006 11:42	I

U Qual - Analyzed for, but the result is less than the Mdc or gamma scan did not identify the nuclide.
J Qual - No U qualifier has been assigned and the result is below the Reporting Limit (CRDL).
B Qual- Analyte was found in the associated laboratory blank above the MDC.

STL Richland QC Blank Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W04971.Edd, h:\Reportdb\edd\FeadIV\Rad\33250.Edd

Lab Sample Id:	JAK2Q1AB	**Sdg/Rept Nbr:**	W04971	33250	**Collection Date:** 08/01/2006 11:52
Client Id:	NA	**Matrix:**	WATER	WATER	**Sample On Date:**
Moisture/Solids%*:		**QC Type:**	BLK		**Received Date:** 08/01/2006

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
	MW6-SBB-A19981								BG	H

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu-al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
6215539	TC-99	-1.83E+00	pCi/L	5.6E+00	U	9.71E+00	100.0		TC99_ETVDSK	1.271E-01	08/26/2006				D
BLK	14133-76-7			3.9E+00						L	11:42				

U Qual - Analyzed for, but the result is less than the Mdc or gamma scan did not identify the nuclide.
J Qual - No U qualifier has been assigned and the result is below the Reporting Limit (CRDL).
B Qual- Analyte was found in the associated laboratory blank above the MDC.

STL Richland QC Blank Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W04971.Edd, h:\Reportdb\edd\FeadIV\Rad\33250.Edd

Lab Sample Id:	JAK2V1AB	**Sdg/Rept Nbr:**	W04971	33250	**Collection Date:** 08/01/2006 09:57
Client Id:	NA	**Matrix:**	WATER	WATER	**Sample On Date:**
Moisture/Solids%*:		**QC Type:**	BLK		**Received Date:** 08/01/2006

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
	MW6-SBB-A19981								BI	H

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu-al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
6215544	H-3	1.38E+02	pCi/L	1.6E+02	U	3.31E+02	100.0		906.0_H3_LSC	5.00E-03	08/17/2006				D
BLK	10028-17-8			1.4E+02						L	00:48				

U Qual - Analyzed for, but the result is less than the Mdc or gamma scan did not identify the nuclide.
J Qual - No U qualifier has been assigned and the result is below the Reporting Limit (CRDL).
B Qual- Analyte was found in the associated laboratory blank above the MDC.

Lab Sample Id: JAK2V1DX **Sdg/Rept Nbr:** W04971 33250 **Collection Date:** 08/01/2006 09:57

Client Id: NA **Matrix:** WATER WATER **Sample On Date:**

Moisture/Solids%*: **QC Type:** BLK **Received Date:** 08/01/2006

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
	MW6-SBB-A19981								BK	H

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu-al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
6215544	H-3	1.45E+00	pCi/L	1.5E+02	U	3.28E+02	100.0		906.0_H3_LSC	5.00E-03	08/17/2006				D
BLK	10028-17-8			1.4E+02						L	15:57				

U Qual - Analyzed for, but the result is less than the Mdc or gamma scan did not identify the nuclide.
J Qual - No U qualifier has been assigned and the result is below the Reporting Limit (CRDL).
B Qual- Analyte was found in the associated laboratory blank above the MDC.

STL Richland QC Blank Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W04971.Edd, h:\Reportdb\edd\FeadIV\Rad\33250.Edd

Lab Sample Id:	JAK311AB	**Sdg/Rept Nbr:**	W04971	33250	**Collection Date:** 07/26/2006 10:22
Client Id:	NA	**Matrix:**	WATER	WATER	**Sample On Date:**
Moisture/Solids%*:		**QC Type:**	BLK		**Received Date:** 08/01/2006

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
	MW6-SBB-A19981								BM	H

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu-al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
6215552	ALPHA	1.05E-01	pCi/L	3.4E-01	U	8.82E-01	100.0		9310_ALPHAB	2.007E-01	08/28/2006				D
BLK	12587-46-1			3.4E-01						L	17:49				

U Qual - Analyzed for, but the result is less than the Mdc or gamma scan did not identify the nuclide.
J Qual - No U qualifier has been assigned and the result is below the Reporting Limit (CRDL).
B Qual- Analyte was found in the associated laboratory blank above the MDC.

STL Richland QC Blank Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W04971.Edd, h:\Reportdb\edd\FeadIV\Rad\33250.Edd

Lab Sample Id:	JAK361AB	**Sdg/Rept Nbr:**	W04971	33250	**Collection Date:** 07/26/2006 08:38
Client Id:	NA	**Matrix:**	WATER	WATER	**Sample On Date:**
Moisture/Solids%*:		**QC Type:**	BLK		**Received Date:** 08/01/2006

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
	MW6-SBB-A19981								BO	H

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu-al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
6215554	BETA	1.30E+00	pCi/L	1.0E+00	U	1.86E+00	100.0		9310_ALPHAB	1.999E-01	08/24/2006				D
BLK	12587-47-2			9.8E-01						L	09:39				

U Qual - Analyzed for, but the result is less than the Mdc or gamma scan did not identify the nuclide.
J Qual - No U qualifier has been assigned and the result is below the Reporting Limit (CRDL).
B Qual- Analyte was found in the associated laboratory blank above the MDC.

STL Richland QC Blank Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W04971.Edd, h:\Reportdb\edd\FeadIV\Rad\33250.Edd

Lab Sample Id:	JAK391AB	**Sdg/Rept Nbr:**	W04971	33250	**Collection Date:** 07/26/2006 09:47
Client Id:	NA	**Matrix:**	WATER	WATER	**Sample On Date:**
Moisture/Solids%*:		**QC Type:**	BLK		**Received Date:** 08/01/2006

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
	MW6-SBB-A19981								BQ	H

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu-al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
6215555	SR-90	1.01E-01	pCi/L	2.2E-01	U	4.61E-01	76.7		SRISO_SEP_P	9.998E-01	09/09/2006				D
BLK	10098-97-2			1.9E-01						L	11:04				

U Qual - Analyzed for, but the result is less than the Mdc or gamma scan did not identify the nuclide.
J Qual - No U qualifier has been assigned and the result is below the Reporting Limit (CRDL).
B Qual- Analyte was found in the associated laboratory blank above the MDC.

STL Richland QC Blank Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W04971.Edd, h:\Reportdb\edd\FeadIV\Rad\33250.Edd

Lab Sample Id:	JAK3H2AB	**Sdg/Rept Nbr:**	W04971	33250	**Collection Date:** 07/25/2006 10:01
Client Id:	NA	**Matrix:**	WATER	WATER	**Sample On Date:**
Moisture/Solids%*:		**QC Type:**	BLK		**Received Date:** 07/25/2006

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
	MW6-SBB-A19981								BS	H

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu-al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
6237250	Uranium	9.21E-03	ug/L	1.1E-03	U	8.35E-02			UTOT_KPA	2.51E-02	09/05/2006				D
BLK	7440-61-1			1.1E-03						ML	13:27				

U Qual - Analyzed for, but the result is less than the Mdc or gamma scan did not identify the nuclide.
J Qual - No U qualifier has been assigned and the result is below the Reporting Limit (CRDL).
B Qual- Analyte was found in the associated laboratory blank above the MDC.

STL Richland QC Blank Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W04971.Edd, h:\Reportdb\edd\FeadIV\Rad\33250.Edd

Lab Sample Id:	JAK3P1AB	**Sdg/Rept Nbr:**	W04971	33250	**Collection Date:** 08/01/2006 12:16
Client Id:	NA	**Matrix:**	WATER	WATER	**Sample On Date:**
Moisture/Solids%*:		**QC Type:**	BLK		**Received Date:** 08/01/2006

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
	MW6-SBB-A19981								BV	H

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu-al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
6215550	I-129L	-8.89E-02	pCi/L	1.1E-01	U	1.78E-01	98.4		I129LL_SEP_L	4.0002E+00	09/09/2006				D
BLK	15046-84-1			1.1E-01						L	14:54				

U Qual - Analyzed for, but the result is less than the Mdc or gamma scan did not identify the nuclide.
J Qual - No U qualifier has been assigned and the result is below the Reporting Limit (CRDL).
B Qual- Analyte was found in the associated laboratory blank above the MDC.

STL Richland QC Blank Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W04971.Edd, h:\Reportdb\edd\FeadIV\Rad\33250.Edd

Lab Sample Id:	JAK4A1AB	**Sdg/Rept Nbr:**	W04971	33250	**Collection Date:** 07/26/2006 09:47
Client Id:	NA	**Matrix:**	WATER	WATER	**Sample On Date:**
Moisture/Solids%*:		**QC Type:**	BLK		**Received Date:** 08/01/2006

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
	MW6-SBB-A19981								BX	H

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu-al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
6215556	BE-7	2.70E+00	pCi/L	1.7E+01	U	3.03E+01			GAMMA_GS	2.50E+00	08/23/2006				D
BLK	13966-02-4			1.7E+01						L	09:06				
6215556	CO-60	-1.68E-02	pCi/L	2.1E+00	U	3.95E+00			GAMMA_GS	2.50E+00	08/23/2006				D
BLK	10198-40-0			2.1E+00						L	09:06				
6215556	CS-134	1.72E+00	pCi/L	2.0E+00	U	3.95E+00			GAMMA_GS	2.50E+00	08/23/2006				D
BLK	13967-70-9			2.0E+00						L	09:06				
6215556	CS-137	3.56E-01	pCi/L	2.0E+00	U	3.59E+00			GAMMA_GS	2.50E+00	08/23/2006				D
BLK	10045-97-3			2.0E+00						L	09:06				
6215556	EU-152	1.54E+00	pCi/L	4.6E+00	U	8.24E+00			GAMMA_GS	2.50E+00	08/23/2006				D
BLK	14683-23-9			4.6E+00						L	09:06				
6215556	EU-154	-4.67E-01	pCi/L	5.7E+00	U	1.06E+01			GAMMA_GS	2.50E+00	08/23/2006				D
BLK	15585-10-1			5.7E+00						L	09:06				
6215556	EU-155	5.58E-01	pCi/L	4.3E+00	U	7.66E+00			GAMMA_GS	2.50E+00	08/23/2006				D
BLK	14391-16-3			4.3E+00						L	09:06				
6215556	K-40	-1.89E+01	pCi/L	5.4E+01	U	1.19E+02			GAMMA_GS	2.50E+00	08/23/2006				D
BLK	13966-00-2			5.4E+01						L	09:06				
6215556	RU-106	-9.83E+00	pCi/L	1.5E+01	U	2.55E+01			GAMMA_GS	2.50E+00	08/23/2006				D
BLK	13967-48-1			1.5E+01						L	09:06				
6215556	SB-125	2.70E+00	pCi/L	4.3E+00	U	8.14E+00			GAMMA_GS	2.50E+00	08/23/2006				D
BLK	14234-35-6			4.3E+00						L	09:06				

U Qual - Analyzed for, but the result is less than the Mdc or gamma scan did not identify the nuclide.
J Qual - No U qualifier has been assigned and the result is below the Reporting Limit (CRDL).
B Qual- Analyte was found in the associated laboratory blank above the MDC.

STL Richland QC Control Sample Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W04971.Edd, h:\Reportdb\edd\FeadIV\Rad\33250.Edd

Lab Sample Id:	JAK2Q1CS	**Sdg/Rept Nbr:**	W04971	33250	**Collection Date:** 08/01/2006 11:52
Client Id:	NA	**Matrix:**	WATER	WATER	**Sample On Date:**
Moisture/Solids%*:		**QC Type:**	BS		**Received Date:** 08/01/2006

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
	MW6-SBB-A19981								BH	H

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu-al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
6215539	TC-99	5.12E+02	pCi/L	4.2E+01		9.87E+00	100.0	5.40E+02	TC99_ETVDSK	1.25E-01	08/26/2006			70	D
BS	14133-76-7			1.3E+01				94.9		L	11:42			130	

U Qual - Analyzed for, but the result is less than the Mdc or gamma scan did not identify the nuclide.
J Qual - No U qualifier has been assigned and the result is below the Reporting Limit (CRDL).
B Qual- Analyte was found in the associated laboratory blank above the MDC.

Lab Sample Id: JAK2V1CS **Sdg/Rept Nbr:** W04971 33250 **Collection Date:** 08/01/2006 09:57

Client Id: NA **Matrix:** WATER WATER **Sample On Date:**

Moisture/Solids%*: **QC Type:** BS **Received Date:** 08/01/2006

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
	MW6-SBB-A19981								BJ	H

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu-al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
6215544	H-3	2.56E+03	pCi/L	2.6E+02		3.30E+02	100.0	2.72E+03	906.0_H3_LSC	5.00E-03	08/17/2006			70	D
BS	10028-17-8			2.2E+02				94.0		L	02:11			130	

U Qual - Analyzed for, but the result is less than the Mdc or gamma scan did not identify the nuclide.
J Qual - No U qualifier has been assigned and the result is below the Reporting Limit (CRDL).
B Qual- Analyte was found in the associated laboratory blank above the MDC.

STL Richland QC Control Sample Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W04971.Edd, h:\Reportdb\edd\FeadIV\Rad\33250.Edd

Lab Sample Id:	JAK2V1EM	**Sdg/Rept Nbr:**	W04971	33250	**Collection Date:** 08/01/2006 09:57
Client Id:	NA	**Matrix:**	WATER	WATER	**Sample On Date:**
Moisture/Solids%*:		**QC Type:**	BS		**Received Date:** 08/01/2006

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
	MW6-SBB-A19981								BL	H

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu-al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
6215544	H-3	2.80E+03	pCi/L	2.7E+02		3.29E+02	100.0	2.72E+03	906.0_H3_LSC	5.00E-03	08/17/2006			70	D
BS	10028-17-8			2.2E+02				102.9		L	17:20			130	

U Qual - Analyzed for, but the result is less than the Mdc or gamma scan did not identify the nuclide.
J Qual - No U qualifier has been assigned and the result is below the Reporting Limit (CRDL).
B Qual- Analyte was found in the associated laboratory blank above the MDC.

STL Richland QC Control Sample Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W04971.Edd, h:\Reportdb\edd\FeadIV\Rad\33250.Edd

Lab Sample Id: JAK311CS **Sdg/Rept Nbr:** W04971 33250 **Collection Date:** 07/26/2006 10:22

Client Id: NA **Matrix:** WATER WATER **Sample On Date:**

Moisture/Solids%*: **QC Type:** BS **Received Date:** 08/01/2006

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
	MW6-SBB-A19981								BN	H

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu-al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
6215552	ALPHA	2.12E+01	pCi/L	5.3E+00		8.43E-01	100.0	2.26E+01	9310_ALPHAB	2.02E-01	08/28/2006			70	D
BS	12587-46-1			3.1E+00				93.7		L	18:57			130	

U Qual - Analyzed for, but the result is less than the Mdc or gamma scan did not identify the nuclide.
J Qual - No U qualifier has been assigned and the result is below the Reporting Limit (CRDL).
B Qual- Analyte was found in the associated laboratory blank above the MDC.

STL Richland QC Control Sample Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W04971.Edd, h:\Reportdb\edd\FeadIV\Rad\33250.Edd

Lab Sample Id:	JAK361CS	**Sdg/Rept Nbr:**	W04971	33250	**Collection Date:** 07/26/2006 08:38
Client Id:	NA	**Matrix:**	WATER	WATER	**Sample On Date:**
Moisture/Solids%*:		**QC Type:**	BS		**Received Date:** 08/01/2006

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
	MW6-SBB-A19981								BP	H

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu-al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
6215554	BETA	2.15E+01	pCi/L	3.3E+00		1.75E+00	100.0	2.26E+01	9310_ALPHAB	2.007E-01	08/24/2006			70	D
BS	12587-47-2			1.7E+00				95.0		L	09:39			130	

U Qual - Analyzed for, but the result is less than the Mdc or gamma scan did not identify the nuclide.
J Qual - No U qualifier has been assigned and the result is below the Reporting Limit (CRDL).
B Qual- Analyte was found in the associated laboratory blank above the MDC.

STL Richland QC Control Sample Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W04971.Edd, h:\Reportdb\edd\FeadIV\Rad\33250.Edd

Lab Sample Id:	JAK391CS	**Sdg/Rept Nbr:**	W04971	33250	**Collection Date:** 07/26/2006 09:47
Client Id:	NA	**Matrix:**	WATER	WATER	**Sample On Date:**
Moisture/Solids%*:		**QC Type:**	BS		**Received Date:** 08/01/2006

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
	MW6-SBB-A19981								BR	H

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu-al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
6215555	SR-90	1.51E+01	pCi/L	2.4E+00		5.69E-01	66.2	1.37E+01	SRISO_SEP_P	1.00E+00	09/09/2006			70	D
BS	10098-97-2			7.7E-01				109.5		L	11:04			130	

U Qual - Analyzed for, but the result is less than the Mdc or gamma scan did not identify the nuclide.
J Qual - No U qualifier has been assigned and the result is below the Reporting Limit (CRDL).
B Qual- Analyte was found in the associated laboratory blank above the MDC.

STL Richland QC Control Sample Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W04971.Edd, h:\Reportdb\edd\FeadIV\Rad\33250.Edd

Lab Sample Id:	JAK3H2CS	**Sdg/Rept Nbr:**	W04971	33250	**Collection Date:** 07/25/2006 10:01
Client Id:	NA	**Matrix:**	WATER	WATER	**Sample On Date:**
Moisture/Solids%*:		**QC Type:**	BS		**Received Date:** 07/25/2006

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
	MW6-SBB-A19981								BT	H

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu-al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
6237250	Uranium	3.39E+01	ug/L	4.0E+00		8.32E-02		3.58E+01	UTOT_KPA	2.52E-02	09/05/2006			70	D
BS	7440-61-1			4.0E+00				94.5		ML	13:45			130	

U Qual - Analyzed for, but the result is less than the Mdc or gamma scan did not identify the nuclide.
J Qual - No U qualifier has been assigned and the result is below the Reporting Limit (CRDL).
B Qual- Analyte was found in the associated laboratory blank above the MDC.

STL Richland QC Control Sample Report

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W04971.Edd, h:\Reportdb\edd\FeadIV\Rad\33250.Edd

Lab Sample Id:	JAK3H2DS	**Sdg/Rept Nbr:**	W04971	33250	**Collection Date:** 07/25/2006 10:01
Client Id:	NA	**Matrix:**	WATER	WATER	**Sample On Date:**
Moisture/Solids%*:		**QC Type:**	BS		**Received Date:** 07/25/2006

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
	MW6-SBB-A19981								BU	H

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu-al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
6237250	Uranium	3.37E+00	ug/L	3.4E-01		8.35E-02		3.62E+00	UTOT_KPA	2.51E-02	09/05/2006			70	D
BS	7440-61-1			3.4E-01				93.1		ML	13:47			130	

U Qual - Analyzed for, but the result is less than the Mdc or gamma scan did not identify the nuclide.
J Qual - No U qualifier has been assigned and the result is below the Reporting Limit (CRDL).
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STL Richland QC Control Sample Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W04971.Edd, h:\Reportdb\edd\FeadIV\Rad\33250.Edd

Lab Sample Id:	JAK3P1CS	**Sdg/Rept Nbr:**	W04971	33250	**Collection Date:** 08/01/2006 12:16
Client Id:	NA	**Matrix:**	WATER	WATER	**Sample On Date:**
Moisture/Solids%*:		**QC Type:**	BS		**Received Date:** 08/01/2006

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
	MW6-SBB-A19981								BW	H

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu-al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
6215550	I-129L	7.76E+00	pCi/L	1.0E+00		3.36E-01	96.3	9.64E+00	I129LL_SEP_L	4.0004E+00	09/11/2006			70	D
BS	15046-84-1			1.0E+00				80.5		L	06:24			130	

U Qual - Analyzed for, but the result is less than the Mdc or gamma scan did not identify the nuclide.
J Qual - No U qualifier has been assigned and the result is below the Reporting Limit (CRDL).
B Qual- Analyte was found in the associated laboratory blank above the MDC.

Lab Sample Id: JAK4A1CS **Sdg/Rept Nbr:** W04971 33250 **Collection Date:** 07/26/2006 09:47

Client Id: NA **Matrix:** WATER WATER **Sample On Date:**

Moisture/Solids%*: **QC Type:** BS **Received Date:** 08/01/2006

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
	MW6-SBB-A19981								BY	H

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu-al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
6215556	CO-60	3.21E+01	pCi/L	6.9E+00		3.89E+00		3.03E+01	GAMMA_GS	2.5017E+00	08/26/2006			70	D
BS	10198-40-0			6.9E+00				105.7		L	09:39			130	
6215556	CS-137	1.99E+01	pCi/L	5.9E+00		4.93E+00		1.98E+01	GAMMA_GS	2.5017E+00	08/26/2006			70	D
BS	10045-97-3			5.9E+00				100.6		L	09:39			130	
6215556	EU-152	6.98E+01	pCi/L	1.4E+01		8.34E+00		6.13E+01	GAMMA_GS	2.5017E+00	08/26/2006			70	D
BS	14683-23-9			1.4E+01				113.9		L	09:39			130	

U Qual - Analyzed for, but the result is less than the Mdc or gamma scan did not identify the nuclide.
J Qual - No U qualifier has been assigned and the result is below the Reporting Limit (CRDL).
B Qual- Analyte was found in the associated laboratory blank above the MDC.

STL Richland QC Duplicate Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W04971.Edd, h:\Reportdb\edd\FeadIV\Rad\33250.Edd

Lab Sample Id:	H91MC2CR	**Sdg/Rept Nbr:**	W04971	33250	**Collection Date:** 07/25/2006 10:01
Client Id:	B1JLJ8	**Matrix:**	WATER	WATER	**Sample On Date:**
Moisture/Solids%*:		**QC Type:**	DUP		**Received Date:** 07/25/2006

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
W06-007	MW6-SBB-A19981								AW	H

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu-al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
6237250	Uranium	5.35E+00	ug/L	5.5E-01		8.35E-02			UTOT_KPA	2.51E-02	09/05/2006	2.4	0.3		D
DUP	7440-61-1	5.48E+00		5.5E-01						ML	13:52	20.0	3		

U Qual - Analyzed for, but the result is less than the Mdc or gamma scan did not identify the nuclide.
J Qual - No U qualifier has been assigned and the result is below the Reporting Limit (CRDL).
B Qual- Analyte was found in the associated laboratory blank above the MDC.

Lab Sample Id: JAE531ER **Sdg/Rept Nbr:** W04971 33250 **Collection Date:** 07/26/2006 08:38

Client Id: B1JLB1 **Matrix:** WATER WATER **Sample On Date:**

Moisture/Solids%*: **QC Type:** DUP **Received Date:** 08/01/2006

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
S06-007	MW6-SBB-A19981								AY	H

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu-al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
6215554	BETA	3.60E+01	pCi/L	5.9E+00		3.11E+00	100.0		9310_ALPHAB	1.999E-01	08/24/2006	7.7	0.7		D
DUP	12587-47-2	3.89E+01		3.1E+00						L	16:31	20.0	3		

U Qual - Analyzed for, but the result is less than the Mdc or gamma scan did not identify the nuclide.
J Qual - No U qualifier has been assigned and the result is below the Reporting Limit (CRDL).
B Qual- Analyte was found in the associated laboratory blank above the MDC.

STL Richland QC Duplicate Report

Lab Code: STLRL

FormNbr: R FormatType: FEAD VersionNbr: 05 File Name: h:\Reportdb\edd\FeadIV\Rad\W04971.Edd, h:\Reportdb\edd\FeadIV\Rad\33250.Edd

Lab Sample Id:	JAE5J1DR	**Sdg/Rept Nbr:**	W04971	33250	**Collection Date:** 08/01/2006 11:52
Client Id:	B1K649	**Matrix:**	WATER	WATER	**Sample On Date:**
Moisture/Solids%*:		**QC Type:**	DUP		**Received Date:** 08/01/2006

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
I06-055	MW6-SBB-A19981								AZ	H

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu-al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
6215539	TC-99	1.51E+03	pCi/L	1.1E+02		9.71E+00	100.0		TC99_ETVDSK	1.268E-01	08/26/2006	5.1	0.9		D
DUP	14133-76-7	1.44E+03		2.1E+01						L	11:41	20.0	3		

U Qual - Analyzed for, but the result is less than the Mdc or gamma scan did not identify the nuclide.
J Qual - No U qualifier has been assigned and the result is below the Reporting Limit (CRDL).
B Qual- Analyte was found in the associated laboratory blank above the MDC.

STL Richland QC Duplicate Report

Lab Code: STLRL

FormNbr: R FormatType: FEAD VersionNbr: 05 File Name: h:\Reportdb\edd\FeadIV\Rad\W04971.Edd, h:\Reportdb\edd\FeadIV\Rad\33250.Edd

Lab Sample Id:	JAE611ER	**Sdg/Rept Nbr:**	W04971	33250	**Collection Date:** 08/01/2006 09:57
Client Id:	B1K657	**Matrix:**	WATER	WATER	**Sample On Date:**
Moisture/Solids%*:		**QC Type:**	DUP		**Received Date:** 08/01/2006

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
I06-055	MW6-SBB-A19981								BA	H

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu-al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
6215544	H-3	5.34E+03	pCi/L	3.8E+02		3.28E+02	100.0		906.0_H3_LSC	5.00E-03	08/17/2006	5.1	1.		D
DUP	10028-17-8	5.62E+03		2.8E+02						L	22:50	20.0	3		

U Qual - Analyzed for, but the result is less than the Mdc or gamma scan did not identify the nuclide.
J Qual - No U qualifier has been assigned and the result is below the Reporting Limit (CRDL).
B Qual- Analyte was found in the associated laboratory blank above the MDC.

Lab Sample Id: JAE6D1ER **Sdg/Rept Nbr:** W04971 33250 **Collection Date:** 08/01/2006 12:16

Client Id: B1K2Y9 **Matrix:** WATER WATER **Sample On Date:**

Moisture/Solids%*: **QC Type:** DUP **Received Date:** 08/01/2006

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
W06-008	MW6-SBB-A19981								BC	H

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu-al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
6215550	I-129L	2.09E-01	pCi/L	1.4E-01	U	2.99E-01	104.3		I129LL_SEP_L	3.9146E+00	09/09/2006	139.0	1.7		D
DUP	15046-84-1	3.76E-02		1.4E-01						L	11:16	20.0	3		

U Qual - Analyzed for, but the result is less than the Mdc or gamma scan did not identify the nuclide.
J Qual - No U qualifier has been assigned and the result is below the Reporting Limit (CRDL).
B Qual- Analyte was found in the associated laboratory blank above the MDC.

STL Richland QC Duplicate Report

Lab Code: STLRL

FormNbr: R FormatType: FEAD VersionNbr: 05 File Name: h:\Reportdb\edd\FeadIV\Rad\W04971.Edd, h:\Reportdb\edd\FeadIV\Rad\33250.Edd

Lab Sample Id:	JAE6W1GR	**Sdg/Rept Nbr:**	W04971	33250	**Collection Date:** 07/26/2006 09:47
Client Id:	B1JK54	**Matrix:**	WATER	WATER	**Sample On Date:**
Moisture/Solids%*:		**QC Type:**	DUP		**Received Date:** 08/01/2006

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
G06-007	MW6-SBB-A19981								BD	H

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu-al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
6215555	SR-90	4.59E+03	pCi/L	6.9E+02		1.90E+00	67.5		SRISO_SEP_P	5.006E-01	09/09/2006	8.3	0.8		D
DUP	10098-97-2	4.99E+03		3.0E+01						L	12:22	20.0	3		

U Qual - Analyzed for, but the result is less than the Mdc or gamma scan did not identify the nuclide.
J Qual - No U qualifier has been assigned and the result is below the Reporting Limit (CRDL).
B Qual- Analyte was found in the associated laboratory blank above the MDC.

Lab Sample Id: JAE6W1HR **Sdg/Rept Nbr:** W04971 33250 **Collection Date:** 07/26/2006 09:47

Client Id: B1JK54 **Matrix:** WATER WATER **Sample On Date:**

Moisture/Solids%*: **QC Type:** DUP **Received Date:** 08/01/2006

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
G06-007	MW6-SBB-A19981								BE	H

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu-al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
6215556	BE-7	4.91E-01	pCi/L	1.6E+01	U	2.92E+01			GAMMA_GS	2.4998E+00	08/23/2006	0.0	1.3		D
DUP	13966-02-4	-1.49E+01		1.6E+01						L	09:05	20.0	3		
6215556	CO-60	-6.10E-01	pCi/L	1.5E+00	U	2.67E+00			GAMMA_GS	2.4998E+00	08/23/2006	953.9	1.5		D
DUP	10198-40-0	9.34E-01		1.5E+00						L	09:05	20.0	3		
6215556	CS-134	-3.53E-01	pCi/L	1.5E+00	U	2.64E+00			GAMMA_GS	2.4998E+00	08/23/2006	0.0	0.5		D
DUP	13967-70-9	1.84E-01		1.5E+00						L	09:05	20.0	3		
6215556	CS-137	-5.77E-01	pCi/L	1.5E+00	U	2.60E+00			GAMMA_GS	2.4998E+00	08/23/2006	0.0	1.1		D
DUP	10045-97-3	-1.77E+00		1.5E+00						L	09:05	20.0	3		
6215556	EU-152	1.02E+00	pCi/L	4.1E+00	U	7.47E+00			GAMMA_GS	2.4998E+00	08/23/2006	110.1	0.9		D
DUP	14683-23-9	3.53E+00		4.1E+00						L	09:05	20.0	3		
6215556	EU-154	4.61E-01	pCi/L	3.4E+00	U	6.90E+00			GAMMA_GS	2.4998E+00	08/23/2006	97.8	0.4		D
DUP	15585-10-1	1.34E+00		3.4E+00						L	09:05	20.0	3		
6215556	EU-155	1.08E-01	pCi/L	6.1E+00	U	1.03E+01			GAMMA_GS	2.4998E+00	08/23/2006	0.0	1.		D
DUP	14391-16-3	-4.19E+00		6.1E+00						L	09:05	20.0	3		
6215556	K-40	9.39E+00	pCi/L	2.2E+01	U	4.81E+01			GAMMA_GS	2.4998E+00	08/23/2006	0.0	1.4		D
DUP	13966-00-2	-1.31E+01		2.2E+01						L	09:05	20.0	3		
6215556	RU-106	4.50E+00	pCi/L	1.1E+01	U	2.20E+01			GAMMA_GS	2.4998E+00	08/23/2006	5372.0	1.1		D
DUP	13967-48-1	-4.18E+00		1.1E+01						L	09:05	20.0	3		
6215556	SB-125	-1.11E+00	pCi/L	4.0E+00	U	6.83E+00			GAMMA_GS	2.4998E+00	08/23/2006	1909.8	0.9		D
DUP	14234-35-6	1.37E+00		4.0E+00						L	09:05	20.0	3		

U Qual - Analyzed for, but the result is less than the Mdc or gamma scan did not identify the nuclide.
J Qual - No U qualifier has been assigned and the result is below the Reporting Limit (CRDL).
B Qual- Analyte was found in the associated laboratory blank above the MDC.

STL Richland QC Duplicate Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W04971.Edd, h:\Reportdb\edd\FeadIV\Rad\33250.Edd

Lab Sample Id:	JAE6X1GR	**Sdg/Rept Nbr:**	W04971	33250	**Collection Date:** 07/26/2006 10:22
Client Id:	B1JK58	**Matrix:**	WATER	WATER	**Sample On Date:**
Moisture/Solids%*:		**QC Type:**	DUP		**Received Date:** 08/01/2006

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
G06-007	MW6-SBB-A19981								BF	H

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu-al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
6215552	ALPHA	4.83E+00	pCi/L	2.4E+00		1.99E+00	100.0		9310_ALPHAB	1.281E-01	08/28/2006	25.0	0.6		D
DUP	12587-46-1	3.76E+00		2.2E+00						L	17:49	20.0	3		

U Qual - Analyzed for, but the result is less than the Mdc or gamma scan did not identify the nuclide.
J Qual - No U qualifier has been assigned and the result is below the Reporting Limit (CRDL).
B Qual- Analyte was found in the associated laboratory blank above the MDC.

STL Richland Qc Matrix Spike Report

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W04971.Edd, h:\Reportdb\edd\FeadIV\Rad\33250.Edd

Lab Sample Id:	H91MR2CW	**Sdg/Rept Nbr:**	W04971	33250	**Collection Date:** 07/25/2006 11:20
Client Id:	B1JLK1	**Matrix:**	WATER	WATER	**Sample On Date:**
Moisture/Solids%*:		**QC Type:**	**MS**		**Received Date:** 07/25/2006

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
W06-007	MW6-SBB-A19981								AX	H

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu-al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
6237250	Uranium	3.50E+01	ug/L	4.1E+00		8.28E-02		3.57E+01	UTOT_KPA	2.53E-02	09/05/2006			60	D
MS	7440-61-1			4.1E+00				98.0		ML	13:56			140	

U Qual - Analyzed for, but the result is less than the Mdc or gamma scan did not identify the nuclide.
J Qual - No U qualifier has been assigned and the result is below the Reporting Limit (CRDL).
B Qual- Analyte was found in the associated laboratory blank above the MDC.

STL Richland Qc Matrix Spike Report

Lab Code: STLRL

FormNbr: R FormatType: FEAD VersionNbr: 05 File Name: h:\Reportdb\edd\FeadIV\Rad\W04971.Edd, h:\Reportdb\edd\FeadIV\Rad\33250.Edd

Lab Sample Id:	JAE671DW	**Sdg/Rept Nbr:**	W04971	33250	**Collection Date:** 08/01/2006 10:37
Client Id:	B1K2X7	**Matrix:**	WATER	WATER	**Sample On Date:**
Moisture/Solids%*:		**QC Type:**	**MS**		**Received Date:** 08/01/2006

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
W06-008	MW6-SBB-A19981								BB	H

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu-al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
6215539	TC-99	3.32E+03	pCi/L	2.5E+02		1.01E+01	100.0	3.61E+03	TC99_ETVDSK	1.247E-01	08/26/2006			60	D
MS	14133-76-7			3.2E+01				92.2		L	11:42			140	

U Qual - Analyzed for, but the result is less than the Mdc or gamma scan did not identify the nuclide.
J Qual - No U qualifier has been assigned and the result is below the Reporting Limit (CRDL).
B Qual- Analyte was found in the associated laboratory blank above the MDC.

SEVERN TRENT STL

Data Review/Verification Checklist

RADIOCHEMISTRY, First Level Review

9/11/2006 4:37:40 PM

Lot No., Due Date: J6H010305,J6H010306,J6H010301; 09/15/2006

Client, Site: 384868; PGW 615HANFORD HANFORD

QC Batch No., Method Test: 6215550; RGAMLEPS Gamma by LEPS

SDG, Matrix: W04971; WATER

	Yes	No	N/A
1.0 COC			
1.1 Is the ICOC page complete; includes all applicable analysis, dates, SOP numbers, and revisions?	✓		
2.0 QC Batch			
2.1 Do the Summary/Detailed Reports include a calculated result for each sample listed on the QC Batch Sheet?	✓		
2.2 Are the QC appropriate for the analysis included in the batch?	✓		
2.3 Is the Analytical Batch Worksheet complete; includes as appropriate, volumes, count times, etc?	✓		
2.4 Does the Worksheets include a Tracer Vial label for each sample?	✓		
3.0 QC & Samples			
3.1 Is the blank results, yield, and MDA within contract limits?	✓		
3.2 Is the LCS result, yield, and MDA within contract limits?	✓		
3.3 Are the MS/MSD results, yields, and MDA within contract limits?			✓
3.4 Are the duplicate result, yields, and MDAs within contract limits?	✓		
3.5 Are the sample yields and MDAs within contract limits?	✓		
4.0 Raw Data			
4.1 Were results calculated in the correct units?	✓		
4.2 Were analysis volumes entered correctly?	✓		
4.3 Were Yields entered correctly?	✓		
4.4 Were spectra reviewed/meet contractual requirements?	✓		
4.5 Were raw counts reviewed for anomalies?	✓		
5.0 Other			
5.1 Are all nonconformances included and noted?			✓
5.2 Are all required forms filled out?	✓		
5.3 Was the correct methodology used?	✓		
5.4 Was transcription checked?	✓		
5.5 Were all calculations checked at a minimum frequency?	✓		
5.6 Are worksheet entries complete and correct?	✓		

6.0 Comments on any No response:

First Level Review Steven E. Richland **Date** 9/11/06

SEVERN TRENT STL

Data Review Checklist
RADIOCHEMISTRY
Second Level Review

QC Batch Number: 6L15550
W04971

Review Item	Yes (√)	No (√)	N/A (√)
A. Sample Analysis 1. Are the sample yields within acceptance criteria?	/		
2. Is the sample Minimum Detectable Activity < the Contract Detection Limit?	/		
3. Are the correct isotopes reported?	/		
B. QC Samples 1. Is the Minimum Detectable Activity for the blank result ≤ the Contract Detection Limit?	/		
2. Does the blank result meet the Contract criteria?	/		
3. Is the blank result < the Contract Detection Limit?	/		
4. Is the blank result > the Contract Detection Limit but the sample result < the Contract Detection Limit?			/
5. Is the LCS recovery with contract acceptance criteria?	/		
7. Is the LCS Minimum Detectable Activity ≤ the Contract Detection Limit?	/		
8. Do the MS/MSD results and yields meet acceptance criteria?			/
9. Do the duplicate sample results and yields meet acceptance criteria?	/		
C. Other 1. Are all Nonconformances included and noted?			/
2. Are all required forms filled out?	/		
3. Was the correct methodology used?	/		
4. Was transcription checked?	/		
5. Were all calculations checked at a minimum frequency?	/		
6. Were units checked?	/		

Comments on any "No" response: _____

Second Level Review: Kerryl R Adam Date: 9-12-06

SEVERN TRENT STL

Data Review/Verification Checklist

RADIOCHEMISTRY, First Level Review

8/30/2006 11:36:34 AM

Lot No., Due Date: J6H010303; 09/15/2006

Client, Site: 384868; PGW 615HANFORD HANFORD

QC Batch No., Method Test: 6215556; RGAMMA Gamma by GER

SDG, Matrix: W04971; WATER

	Yes	No	N/A
1.0 COC			
1.1 Is the ICOC page complete; includes all applicable analysis, dates, SOP numbers, and revisions?	✓		
2.0 QC Batch			
2.1 Do the Summary/Detailed Reports include a calculated result for each sample listed on the QC Batch Sheet?	✓		
2.2 Are the QC appropriate for the analysis included in the batch?	✓		
2.3 Is the Analytical Batch Worksheet complete; includes as appropriate, volumes, count times, etc?	✓		
2.4 Does the Worksheets include a Tracer Vial label for each sample?			✓
3.0 QC & Samples			
3.1 Is the blank results, yield, and MDA within contract limits?	✓		
3.2 Is the LCS result, yield, and MDA within contract limits?	✓		
3.3 Are the MS/MSD results, yields, and MDA within contract limits?			✓
3.4 Are the duplicate result, yields, and MDAs within contract limits?	✓		
3.5 Are the sample yields and MDAs within contract limits?	✓		
4.0 Raw Data			
4.1 Were results calculated in the correct units?	✓		
4.2 Were analysis volumes entered correctly?	✓		
4.3 Were Yields entered correctly?			✓
4.4 Were spectra reviewed/meet contractual requirements?	✓		
4.5 Were raw counts reviewed for anomalies?	✓		
5.0 Other			
5.1 Are all nonconformances included and noted?			✓
5.2 Are all required forms filled out?	✓		
5.3 Was the correct methodology used?	✓		
5.4 Was transcription checked?	✓		
5.5 Were all calculations checked at a minimum frequency?	✓		
5.6 Are worksheet entries complete and correct?	✓		

6.0 Comments on any No response:

First Level Review Pam Anderson **Date** 8-30-06

SEVERN TRENT STL

Data Review Checklist
RADIOCHEMISTRY
Second Level Review

QC Batch Number: 621556
W04971

Review Item	Yes (√)	No (√)	N/A (√)
A. Sample Analysis 1. Are the sample yields within acceptance criteria?	✓		
2. Is the sample Minimum Detectable Activity < the Contract Detection Limit?	✓		
3. Are the correct isotopes reported?	✓		
B. QC Samples 1. Is the Minimum Detectable Activity for the blank result ≤ the Contract Detection Limit?	✓		
2. Does the blank result meet the Contract criteria?	✓		
3. Is the blank result < the Contract Detection Limit?	✓		
4. Is the blank result > the Contract Detection Limit but the sample result < the Contract Detection Limit?			✓
5. Is the LCS recovery with contract acceptance criteria?	✓		
7. Is the LCS Minimum Detectable Activity ≤ the Contract Detection Limit?	✓		
8. Do the MS/MSD results and yields meet acceptance criteria?			✓
9. Do the duplicate sample results and yields meet acceptance criteria?	✓		
C. Other 1. Are all Nonconformances included and noted?			✓
2. Are all required forms filled out?	✓		
3. Was the correct methodology used?	✓		
4. Was transcription checked?	✓		
5. Were all calculations checked at a minimum frequency?	✓		
6. Were units checked?	✓		

Comments on any "No" response: _____

Second Level Review: Terry L Allen Date: 8-30-06

SEVERN TRENT STL

Data Review/Verification Checklist

RADIOCHEMISTRY, First Level Review

8/30/2006 8:10:34 AM

Lot No., Due Date: J6H010299,J6H010303; 09/15/2006

Client, Site: 384868; PGW 615HANFORD HANFORD

QC Batch No., Method Test: 6215552; RALPHA-A Alpha by GPC-Am

SDG, Matrix: W04971; WATER

	Yes	No	N/A
8.0 Correction Calculation Protocol Used. OK	✓		
8.01 The Appropriate Methods Were Used To Analyze the Samples OK	✓		
8.02 Final Results Are in the Appropriate Activity Units OK	✓		
8.03 Batch Contains the Required QC Appropriate for the Method OK	✓		
8.04 The Correct Tracer and QC Vials Where Used in the Samples OK	✓		
8.05 Sample was Appropriately Traced Before or After Fractionating the Sample OK	✓		
8.06 At Least the Minimum Sample Volume Was Used Analysis Volume => JAE531AC 185.20<200.00 JAE6W1AC 99.40<200.00 JAE6X1AC 128.20<200.00 Q:VB		✓	
8.07 The Correct Count Geometry was Used. OK	✓		
8.08 The Sample was Counted for the Minimum Count Time or CRDL was Achieved. OK	✓		
8.09 Method Blank is within Control Limits. OK	✓		
8.1 Comments:			
8.11 Matrix Blank is within Control Limits. No Matrix Blanks (MBlks) found in Batch!			✓
8.12 Method Blank(s) < QAS Limit Value (No B Flag Necessary). OK	✓		
8.13 QAS Specified Duplicate Equation Value within Control Limits. RPD > UCL : 20.0=> JAE6X1AG ALPHA 25.0 (RPD)		✓	
8.14 LCS within Control Limits. OK	✓		
8.15 MLCS within Control Limits. No Matrix Spikes (MLCS) found in Batch!			✓
8.16 MS within Control Limits. No Matrix Spike Samples (MS) found in Batch!			✓
8.17 Tracer within Control Limits. OK	✓		
8.18 Samples are above Minimum Tracer Yield (No Failed Samples) OK	✓		
8.19 Sample Specific MDC <= CRDL. MDC/MDA > CRDL => JAE6W1AC ALPHA 3.5E+00>3.0E+00 Q:C1		✓	
8.2 Comments:			
8.21 Result < Lc, Activity Not Detected, U Flag. No Limit Specified!			✓
8.22 Result < Mdc, Activity Not Detected, U Flag. Batch Positive Result => JAE6W1AC ALPHA 3.6E+00 L:3.5E+00 JAE6X1AC ALPHA 3.8E+00 L:2.2E+00		✓	
8.23 Result <= Action Level, when Defined. OK; No Action Level Found => ALPHA OK; No Callin Level Found => ALPHA	✓		
8.24 Result + 3s >=0, Not Too Negative. OK	✓		

NCM 10.085-86

8.25 Counting Spectrum are within FWHM Limits. No FWHM found in Batch Data!	Yes	No	N/A ✓
8.26 Instruments have Current Calibrations.	Yes	No	N/A
8.27 Correct Count Library Used. No Count Library found in Batch Data!	Yes	No	N/A ✓
8.28 Instrument Background within Limits at Time of Counting. (Not Applicable to this version. To be developed in later versions)	Yes	No	N/A
8.29 Instrument Check Source within Limits at the Time of Counting. (Not Applicable to this version. To be developed in later versions)	Yes	No	N/A
8.3 Comments:			
8.31 Results Blank Subtracted as Appropriate. OK	Yes ✓	No	N/A

First Level Review Pam Anderson **Date** 8.30.06

SEVERN TRENT STL

Data Review Checklist
RADIOCHEMISTRY
Second Level Review

QC Batch Number: 6215552
W04971

Review Item	Yes (√)	No (√)	N/A (√)
A. Sample Analysis 1. Are the sample yields within acceptance criteria?		/	
2. Is the sample Minimum Detectable Activity < the Contract Detection Limit?	/		
3. Are the correct isotopes reported?	/		
B. QC Samples 1. Is the Minimum Detectable Activity for the blank result ≤ the Contract Detection Limit?	/		
2. Does the blank result meet the Contract criteria?	/		
3. Is the blank result < the Contract Detection Limit?			
4. Is the blank result > the Contract Detection Limit but the sample result < the Contract Detection Limit?			/
5. Is the LCS recovery with contract acceptance criteria?	/		
7. Is the LCS Minimum Detectable Activity ≤ the Contract Detection Limit?	/		
8. Do the MS/MSD results and yields meet acceptance criteria?			/
9. Do the duplicate sample results and yields meet acceptance criteria?	/		
C. Other 1. Are all Nonconformances included and noted?	/		
2. Are all required forms filled out?	/		
3. Was the correct methodology used?	/		
4. Was transcription checked?	/		
5. Were all calculations checked at a minimum frequency?	/		
6. Were units checked?	/		

Comments on any "No" response: See NCM

Second Level Review: Sheryl A Adam Date: 8-30-06

Clouseau
Nonconformance Memo

SEVERN TRENT SERVICES

NCM #: **10-08586**
NCM Initiated By: Pam Anderson
Date Opened: 08/30/2006
Date Closed:

Classification: **Anomaly**
Status: **PMREVIEW**
Production Area: Environmental - Sep
Tests: Alpha by GPC-Am
Lot #'s (Sample #'s): J6H010303 (1),
QC Batches: 6215552

Nonconformance: MDA not met
Subcategory: Matrix effect

Problem Description / Root Cause

Name	Date	Description
Pam Anderson	08/30/2006	Sample JAE6W1AC for alpha does not meet CRDL. A smaller aliquot was taken when the activity screen indicated a warm sample. This helps to stop contamination in the lab.

Corrective Action

Name	Date	Corrective Action
Pam Anderson	08/30/2006	Note in case narrative.

Client Notification Summary

Client	Project Manager	Notified	Response	How Notified	Note	Response	Response Note

Quality Assurance Verification

Verified By	Due Date	Status	Notes
		This section not yet completed by QA.	

Approval History

Date Approved	Approved By	Position

SEVERN TRENT STL

Data Review/Verification Checklist

RADIOCHEMISTRY, First Level Review

8/28/2006 9:04:33 AM

Lot No., Due Date: J6H010299,J6H010303; 09/15/2006

Client, Site: 384868; PGW 615HANFORD HANFORD

QC Batch No., Method Test: 6215554; RBETA-SR Beta by GPC-Sr/Y

SDG, Matrix: W04971; WATER

	Yes	No	N/A
8.0 Correction Calculation Protocol Used. OK	✓		
8.01 The Appropriate Methods Were Used To Analyze the Samples OK	✓		
8.02 Final Results Are in the Appropriate Activity Units OK	✓		
8.03 Batch Contains the Required QC Appropriate for the Method OK	✓		
8.04 The Correct Tracer and QC Vials Where Used in the Samples OK	✓		
8.05 Sample was Appropriately Traced Before or After Fractionating the Sample OK	✓		
8.06 At Least the Minimum Sample Volume Was Used Analysis Volume => JAE6W1AD 50.50<200.00 Q:VB		✓	
8.07 The Correct Count Geometry was Used. OK	✓		
8.08 The Sample was Counted for the Minimum Count Time or CRDL was Achieved. OK	✓		
8.09 Method Blank is within Control Limits. OK	✓		
8.1 Comments:			
8.11 Matrix Blank is within Control Limits. No Matrix Blanks (MBlks) found in Batch!			✓
8.12 Method Blank(s) < QAS Limit Value (No B Flag Necessary). OK	✓		
8.13 QAS Specified Duplicate Equation Value within Control Limits. OK (RPD)	✓		
8.14 LCS within Control Limits. OK	✓		
8.15 MLCS within Control Limits. No Matrix Spikes (MLCS) found in Batch!			✓
8.16 MS within Control Limits. No Matrix Spike Samples (MS) found in Batch!			✓
8.17 Tracer within Control Limits. OK	✓		
8.18 Samples are above Minimum Tracer Yield (No Failed Samples) OK	✓		
8.19 Sample Specific MDC <= CRDL. MDC/MDA > CRDL => JAE6W1AD BETA 7.8E+00>4.0E+00 Q:C1		✓	
8.2 Comments:			
8.21 Result < Lc, Activity Not Detected, U Flag. No Limit Specified!			✓
8.22 Result < Mdc, Activity Not Detected, U Flag. Batch Positive Result => JAE531AD BETA 3.9E+01 L:2.6E+00 JAE6W1AD BETA 8.7E+03 L:7.8E+00 JAE6X1AD BETA 2.0E+03 L:2.9E+00		✓	
8.23 Result <= Action Level, when Defined. OK; No Action Level Found => BETA OK; No Callin Level Found => BETA	✓		
8.24 Result + 3s >=0, Not Too Negative. OK	✓		

8.25 Counting Spectrum are within FWHM Limits. No FWHM found in Batch Data!	Yes	No	N/A ✓
8.26 Instruments have Current Calibrations.	Yes	No	N/A
8.27 Correct Count Library Used. No Count Library found in Batch Data!	Yes	No	N/A ✓
8.28 Instrument Background within Limits at Time of Counting. (Not Applicable to this version. To be developed in later versions)	Yes	No	N/A
8.29 Instrument Check Source within Limits at the Time of Counting. (Not Applicable to this version. To be developed in later versions)	Yes	No	N/A
8.3 Comments:			
8.31 Results Blank Subtracted as Appropriate. OK	Yes ✓	No	N/A

First Level Review Pam Anderson **Date** 8-28-06

SEVERN TRENT STL

Data Review Checklist
RADIOCHEMISTRY
Second Level Review

QC Batch Number: 621554
W04971

Review Item	Yes (√)	No (√)	N/A (√)
A. Sample Analysis 1. Are the sample yields within acceptance criteria?	/		
2. Is the sample Minimum Detectable Activity < the Contract Detection Limit?	/		
3. Are the correct isotopes reported?	/		
B. QC Samples 1. Is the Minimum Detectable Activity for the blank result ≤ the Contract Detection Limit?	/		
2. Does the blank result meet the Contract criteria?	/		
3. Is the blank result < the Contract Detection Limit?	/		
4. Is the blank result > the Contract Detection Limit but the sample result < the Contract Detection Limit?			/
5. Is the LCS recovery with contract acceptance criteria?	/		
7. Is the LCS Minimum Detectable Activity ≤ the Contract Detection Limit?	/		
8. Do the MS/MSD results and yields meet acceptance criteria?			/
9. Do the duplicate sample results and yields meet acceptance criteria?	/		
C. Other 1. Are all Nonconformances included and noted?			/
2. Are all required forms filled out?	/		
3. Was the correct methodology used?	/		
4. Was transcription checked?	/		
5. Were all calculations checked at a minimum frequency?	/		
6. Were units checked?	/		

Comments on any "No" response: _____

Second Level Review: Sheryl A Adam Date: 8-28-06

SEVERN TRENT STL

Data Review/Verification Checklist

RADIOCHEMISTRY, First Level Review

9/11/2006 4:04:50 PM

Lot No., Due Date: J6H010303; 09/15/2006

Client, Site: 384868; PGW 615HANFORD HANFORD

QC Batch No., Method Test: 6215555; RSR85907 Sr-85/90 by GPC-7

SDG, Matrix: W04971; WATER

	Yes	No	N/A
1.0 COC			
1.1 Is the ICOC page complete; includes all applicable analysis, dates, SOP numbers, and revisions?	✓		
2.0 QC Batch			
2.1 Do the Summary/Detailed Reports include a calculated result for each sample listed on the QC Batch Sheet?	✓		
2.2 Are the QC appropriate for the analysis included in the batch?	✓		
2.3 Is the Analytical Batch Worksheet complete; includes as appropriate, volumes, count times, etc?	✓		
2.4 Does the Worksheets include a Tracer Vial label for each sample?	✓		
3.0 QC & Samples			
3.1 Is the blank results, yield, and MDA within contract limits?	✓		
3.2 Is the LCS result, yield, and MDA within contract limits?	✓		
3.3 Are the MS/MSD results, yields, and MDA within contract limits?			✓
3.4 Are the duplicate result, yields, and MDAs within contract limits?	✓		
3.5 Are the sample yields and MDAs within contract limits?		✓	
4.0 Raw Data			
4.1 Were results calculated in the correct units?	✓		
4.2 Were analysis volumes entered correctly?	✓		
4.3 Were Yields entered correctly?	✓		
4.4 Were spectra reviewed/meet contractual requirements?	✓		
4.5 Were raw counts reviewed for anomalies?	✓		
5.0 Other			
5.1 Are all nonconformances included and noted?	✓		
5.2 Are all required forms filled out?	✓		
5.3 Was the correct methodology used?	✓		
5.4 Was transcription checked?	✓		
5.5 Were all calculations checked at a minimum frequency?	✓		
5.6 Are worksheet entries complete and correct?	✓		

6.0 Comments on any No response:

Elevated MDA due to reduced aliquants (screening)

First Level Review Steven E. Weiland **Date** 9/11/06

SEVERN TRENT STL

Data Review Checklist
RADIOCHEMISTRY
Second Level Review

QC Batch Number: 6215555
W04971

Review Item	Yes (√)	No (√)	N/A (√)
A. Sample Analysis 1. Are the sample yields within acceptance criteria?		/	
2. Is the sample Minimum Detectable Activity < the Contract Detection Limit?	/		
3. Are the correct isotopes reported?	/		
B. QC Samples 1. Is the Minimum Detectable Activity for the blank result ≤ the Contract Detection Limit?	/		
2. Does the blank result meet the Contract criteria?	/		
3. Is the blank result < the Contract Detection Limit?	/		
4. Is the blank result > the Contract Detection Limit but the sample result < the Contract Detection Limit?			/
5. Is the LCS recovery with contract acceptance criteria?	/		
7. Is the LCS Minimum Detectable Activity ≤ the Contract Detection Limit?	/		
8. Do the MS/MSD results and yields meet acceptance criteria?			/
9. Do the duplicate sample results and yields meet acceptance criteria?	/		
C. Other 1. Are all Nonconformances included and noted?	/		
2. Are all required forms filled out?	/		
3. Was the correct methodology used?	/		
4. Was transcription checked?	/		
5. Were all calculations checked at a minimum frequency?	/		
6. Were units checked?	/		

Comments on any "No" response: See NCM

Second Level Review: Sheryl A Adam Date: 9-12-06

Clouseau
Nonconformance Memo

SEVERN TRENT SERVICES

NCM #: **10-08656**
NCM Initiated By: Steven Wheland
Date Opened: 09/11/2006
Date Closed:

Classification: **Anomaly**
Status: **GLREVIEW**
Production Area: Environmental - Prep
Tests: Sr-85/90 by GPC-7
Lot #'s (Sample #'s): J6H010303 (1),
QC Batches: 6215555

Nonconformance: MDA not met
Subcategory: Data accepted

Problem Description / Root Cause

Name	Date	Description
Steven Wheland	09/11/2006	MDA elevated due to reduced aliquant.

Corrective Action

Name	Date	Corrective Action
Steven Wheland	09/11/2006	report data

Client Notification Summary

Client	Project Manager	Notified	Response	How Notified	Note
	Response	Response Note			

Quality Assurance Verification

Verified By	Due Date	Status	Notes
		This section not yet completed by QA.	

Approval History

Date Approved	Approved By	Position

SEVERN TRENT STL

Data Review/Verification Checklist

RADIOCHEMISTRY, First Level Review

8/30/2006 7:45:41 AM

Lot No., Due Date: J6H010301,J6H010297,J6H010305,J6H010307; 09/15/2006

Client, Site: 384868; PGW 615HANFORD HANFORD

QC Batch No., Method Test: 6215539; RTC99 Tc-99 by LSC

SDG, Matrix: W04971; WATER

	Yes	No	N/A
8.0 Correction Calculation Protocol Used. OK	✓		
8.01 The Appropriate Methods Were Used To Analyze the Samples OK	✓		
8.02 Final Results Are in the Appropriate Activity Units OK	✓		
8.03 Batch Contains the Required QC Appropriate for the Method OK	✓		
8.04 The Correct Tracer and QC Vials Where Used in the Samples Incorrect Tracer/Vial => JAE671AD TCSG<>TCSE Q:V9		✓	
8.05 Sample was Appropriately Traced Before or After Fractionating the Sample OK	✓		
8.06 At Least the Minimum Sample Volume Was Used OK	✓		
8.07 The Correct Count Geometry was Used. OK	✓		
8.08 The Sample was Counted for the Minimum Count Time or CRDL was Achieved. OK	✓		
8.09 Method Blank is within Control Limits. OK	✓		
8.1 Comments:			
8.11 Matrix Blank is within Control Limits. No Matrix Blanks (MBlks) found in Batch!			✓
8.12 Method Blank(s) < QAS Limit Value (No B Flag Necessary). OK	✓		
8.13 QAS Specified Duplicate Equation Value within Control Limits. OK (RPD)	✓		
8.14 LCS within Control Limits. OK	✓		
8.15 MLCS within Control Limits. No Matrix Spikes (MLCS) found in Batch!			✓
8.16 MS within Control Limits. OK	✓		
8.17 Tracer within Control Limits. No Tracers found in Batch!			✓
8.18 Samples are above Minimum Tracer Yield (No Failed Samples) No Tracers found in Batch!			✓
8.19 Sample Specific MDC <= CRDL. OK	✓		
8.2 Comments:			
8.21 Result < Lc, Activity Not Detected, U Flag. No Limit Specified!			✓
8.22 Result < Mdc, Activity Not Detected, U Flag. No Positive Results OK Calc_IDL Not Calculated	✓		
8.23 Result <= Action Level, when Defined. OK; No Action Level Found => TC-99 OK; No Callin Level Found => TC-99	✓		
8.24 Result + 3s >=0, Not Too Negative. OK	✓		
8.25 Counting Spectrum are within FWHM Limits. No FWHM found in Batch Data!			✓

	Yes	No	N/A
8.26 Instruments have Current Calibrations.			
8.27 Correct Count Library Used. No Count Library found in Batch Data!			✓
8.28 Instrument Background within Limits at Time of Counting. (Not Applicable to this version. To be developed in later versions)			
8.29 Instrument Check Source within Limits at the Time of Counting. (Not Applicable to this version. To be developed in later versions)			
8.3 Comments:			
8.31 Results Blank Subtracted as Appropriate. OK	✓		

First Level Review Pam Anderson **Date** 8.30.06

SEVERN TRENT STL

Data Review Checklist
RADIOCHEMISTRY
Second Level Review

QC Batch Number: 6L15539
WO 4991

Review Item	Yes (√)	No (√)	N/A (√)
A. Sample Analysis 1. Are the sample yields within acceptance criteria?	✓		
2. Is the sample Minimum Detectable Activity < the Contract Detection Limit?	✓		
3. Are the correct isotopes reported?	✓		
B. QC Samples 1. Is the Minimum Detectable Activity for the blank result ≤ the Contract Detection Limit?	✓		
2. Does the blank result meet the Contract criteria?	✓		
3. Is the blank result < the Contract Detection Limit?	✓		
4. Is the blank result > the Contract Detection Limit but the sample result < the Contract Detection Limit?			✓
5. Is the LCS recovery with contract acceptance criteria?	✓		
7. Is the LCS Minimum Detectable Activity ≤ the Contract Detection Limit?	✓		
8. Do the MS/MSD results and yields meet acceptance criteria?			✓
9. Do the duplicate sample results and yields meet acceptance criteria?	✓		
C. Other 1. Are all Nonconformances included and noted?			✓
2. Are all required forms filled out?	✓		
3. Was the correct methodology used?	✓		
4. Was transcription checked?	✓		
5. Were all calculations checked at a minimum frequency?	✓		
6. Were units checked?	✓		

Comments on any "No" response: _____

Second Level Review: Sheryl A Adam Date: 8-30-06

SEVERN TRENT STL

Data Review/Verification Checklist

RADIOCHEMISTRY, First Level Review

8/21/2006 1:36:25 PM

Lot No., Due Date: J6H010299,J6H010301,J6H010297,J6H010305,J6H010307,J6H010303; 09/15/2006

Client, Site: 384868; PGW 615HANFORD HANFORD

QC Batch No., Method Test: 6215544; RTRITIUM H-3 by LSC

SDG, Matrix: W04971; WATER

	Yes	No	N/A
8.0 Correction Calculation Protocol Used. OK	✓		
8.01 The Appropriate Methods Were Used To Analyze the Samples OK	✓		
8.02 Final Results Are in the Appropriate Activity Units OK	✓		
8.03 Batch Contains the Required QC Appropriate for the Method OK	✓		
8.04 The Correct Tracer and QC Vials Where Used in the Samples OK	✓		
8.05 Sample was Appropriately Traced Before or After Fractionating the Sample OK	✓		
8.06 At Least the Minimum Sample Volume Was Used Analysis Volume => JAE5J1AA 5.00<10.00 JAE531AA 5.00<10.00 JAE591AA 5.00<10.00 JAE6C1AA 5.00<10.00 JAE6D1AA 5.00<10.00 JAE6K1AA 5.00<10.00 JAE6R1AE 5.00<10.00 JAE6T1AA 5.00<10.00 JAE6W1AA 5.00<10.00 JAE6X1AA 5.00<10.00 JAE611AA 5.00<10.00 JAE671AA 5.00<10.00 JAGEM1AA 5.00<10.00 Q:VB OK PA 8-21-06		✓	
8.07 The Correct Count Geometry was Used. Count Geometry => JAK2V1AF SVP15/5<>SVP10/10 JAK2V1AG SVP15/5<>SVP10/10 JAK2V1AH SVP15/5<>SVP10/10 JAK2V1AA SVP15/5<>SVP10/10 JAK2V1AC SVP15/5<>SVP10/10 JAE5J1AA SVP15/5<>SVP10/10 JAE531AA SVP15/5<>SVP10/10 JAE591AA SVP15/5<>SVP10/10 JAE6C1AA SVP15/5<>SVP10/10 JAE6D1AA SVP15/5<>SVP10/10 JAE6K1AA SVP15/5<>SVP10/10 JAE6R1AE SVP15/5<>SVP10/10 JAE6T1AA SVP15/5<>SVP10/10 JAK2V1AD SVP15/5<>SVP10/10 JAK2V1AE SVP15/5<>SVP10/10 JAE6W1AA SVP15/5<>SVP10/10 JAE6X1AA SVP15/5<>SVP10/10 JAE611AA SVP15/5<>SVP10/10 JAE611AE SVP15/5<>SVP10/10 JAE671AA SVP15/5<>SVP10/10 JAGEM1AA SVP15/5<>SVP10/10 Q:VC OK PA - 8-21-06		✓	
8.08 The Sample was Counted for the Minimum Count Time or CRDL was Achieved. OK	✓		
8.09 Method Blank is within Control Limits. OK	✓		
8.1 Comments:			
8.11 Matrix Blank is within Control Limits. OK	✓		
8.12 Method Blank(s) < QAS Limit Value (No B Flag Necessary). OK	✓		
8.13 QAS Specified Duplicate Equation Value within Control Limits. OK (RPD)	✓		
8.14 LCS within Control Limits. OK	✓		

	Yes	No	N/A
8.15 MLCS within Control Limits. OK	✓		
8.16 MS within Control Limits. No Matrix Spike Samples (MS) found in Batch!			✓
8.17 Tracer within Control Limits. No Tracers found in Batch!			✓
8.18 Samples are above Minimum Tracer Yield (No Failed Samples) No Tracers found in Batch!			✓
8.19 Sample Specific MDC <= CRDL. OK	✓		
8.2 Comments:			
8.21 Result < Lc, Activity Not Detected, U Flag. No Limit Specified!			✓
8.22 Result < Mdc, Activity Not Detected, U Flag. No Positive Results OK Calc_IDL Not Calculated	✓		
8.23 Result <= Action Level, when Defined. OK; No Action Level Found => H-3 OK; No Callin Level Found => H-3	✓		
8.24 Result + 3s >=0, Not Too Negative. OK	✓		
8.25 Counting Spectrum are within FWHM Limits. No FWHM found in Batch Data!			✓
8.26 Instruments have Current Calibrations.			
8.27 Correct Count Library Used. No Count Library found in Batch Data!			✓
8.28 Instrument Background within Limits at Time of Counting. (Not Applicable to this version. To be developed in later versions)			
8.29 Instrument Check Source within Limits at the Time of Counting. (Not Applicable to this version. To be developed in later versions)			
8.3 Comments:			
8.31 Results Blank Subtracted as Appropriate. OK	✓		

First Level Review Pam Anderson **Date** 8-21-06

SEVERN TRENT STL

Data Review Checklist
RADIOCHEMISTRY
Second Level Review

QC Batch Number: 621554/
W04971

Review Item	Yes (√)	No (√)	N/A (√)
A. Sample Analysis			
1. Are the sample yields within acceptance criteria?	/		
2. Is the sample Minimum Detectable Activity < the Contract Detection Limit?	/		
3. Are the correct isotopes reported?	/		
B. QC Samples			
1. Is the Minimum Detectable Activity for the blank result ≤ the Contract Detection Limit?	/		
2. Does the blank result meet the Contract criteria?	/		
3. Is the blank result < the Contract Detection Limit?	/		
4. Is the blank result > the Contract Detection Limit but the sample result < the Contract Detection Limit?			/
5. Is the LCS recovery with contract acceptance criteria?	/		
7. Is the LCS Minimum Detectable Activity ≤ the Contract Detection Limit?	/		
8. Do the MS/MSD results and yields meet acceptance criteria?			/
9. Do the duplicate sample results and yields meet acceptance criteria?	/		
C. Other			
1. Are all Nonconformances included and noted?			/
2. Are all required forms filled out?	/		
3. Was the correct methodology used?	/		
4. Was transcription checked?	/		
5. Were all calculations checked at a minimum frequency?	/		
6. Were units checked?	/		

Comments on any "No" response: _____

Second Level Review: Sheryl A Adam Date: 5-21-06

SEVERN TRENT STL

Data Review/Verification Checklist

RADIOCHEMISTRY, First Level Review

9/6/2006 5:07:33 PM

Lot No., Due Date: J6G260132,J6G310193,J6H010306; 09/15/2006

Client, Site: 384868; PGW 615HANFORD HANFORD

QC Batch No., Method Test: 6237250; RUNAT UNat by KPA

SDG, Matrix: W04971; WATER

	Yes	No	N/A
8.0 Correction Calculation Protocol Used. OK	✓		
8.01 The Appropriate Methods Were Used To Analyze the Samples OK	✓		
8.02 Final Results Are in the Appropriate Activity Units OK	✓		
8.03 Batch Contains the Required QC Appropriate for the Method OK	✓		
8.04 The Correct Tracer and QC Vials Where Used in the Samples Incorrect Tracer/Vial => JAK3H2AD UNSC<>UNSF Q:V9		✓	
8.05 Sample was Appropriately Traced Before or After Fractionating the Sample OK	✓		
8.06 At Least the Minimum Sample Volume Was Used No Count Analysis Size found in Batch Data!			✓
8.07 The Correct Count Geometry was Used. No Count Geometry found in Batch Data!			✓
8.08 The Sample was Counted for the Minimum Count Time or CRDL was Achieved. No Count Duration Field Found in Batch Data!			✓
8.09 Method Blank is within Control Limits. OK	✓		
8.1 Comments:			
8.11 Matrix Blank is within Control Limits. No Matrix Blanks (MBlks) found in Batch!			✓
8.12 Method Blank(s) < QAS Limit Value (No B Flag Necessary). OK	✓		
8.13 QAS Specified Duplicate Equation Value within Control Limits. OK (RPD)	✓		
8.14 LCS within Control Limits. OK	✓		
8.15 MLCS within Control Limits. No Matrix Spikes (MLCS) found in Batch!			✓
8.16 MS within Control Limits. OK	✓		
8.17 Tracer within Control Limits. No Tracers found in Batch!			✓
8.18 Samples are above Minimum Tracer Yield (No Failed Samples) No Tracers found in Batch!			✓
8.19 Sample Specific MDC <= CRDL. OK	✓		
8.2 Comments:			
8.21 Result < Lc, Activity Not Detected, U Flag. No Limit Specified!			✓
8.22 Result < Mdc, Activity Not Detected, U Flag. Batch Positive Result => H91MC2AA Uranium 5.5E+00 L:8.4E-02 JAC4R2AA Uranium 4.1E+01 L:8.5E-02 JAC4T2AA Uranium 5.1E+00 L:8.3E-02 JAE652AC Uranium 1.5E+00 L:8.2E-02 JAE662AC Uranium 9.1E-01 L:8.3E-02		✓	
8.23 Result <= Action Level, when Defined. OK; No Action Level Found => Uranium OK; No Callin Level Found => Uranium	✓		
8.24 Result + 3s >=0, Not Too Negative. OK NCM # 10-08626	✓		

8.25 Counting Spectrum are within FWHM Limits. No FWHM found in Batch Data!	Yes	No	N/A ✓
8.26 Instruments have Current Calibrations.	Yes	No	N/A
8.27 Correct Count Library Used. No Count Library found in Batch Data!	Yes	No	N/A ✓
8.28 Instrument Background within Limits at Time of Counting. (Not Applicable to this version. To be developed in later versions)	Yes	No	N/A
8.29 Instrument Check Source within Limits at the Time of Counting. (Not Applicable to this version. To be developed in later versions)	Yes	No	N/A
8.3 Comments:			
8.31 Results Blank Subtracted as Appropriate. OK	Yes ✓	No	N/A

First Level Review Pam Anderson **Date** 9-7-06

SEVERN TRENT STL

Data Review Checklist
RADIOCHEMISTRY
Second Level Review

QC Batch Number: 623250
W049771

Review Item	Yes (√)	No (√)	N/A (√)
A. Sample Analysis 1. Are the sample yields within acceptance criteria?	/		
2. Is the sample Minimum Detectable Activity < the Contract Detection Limit?	/		
3. Are the correct isotopes reported?	/		
B. QC Samples 1. Is the Minimum Detectable Activity for the blank result ≤ the Contract Detection Limit?	/		
2. Does the blank result meet the Contract criteria?	/		
3. Is the blank result < the Contract Detection Limit?	/		
4. Is the blank result > the Contract Detection Limit but the sample result < the Contract Detection Limit?			/
5. Is the LCS recovery with contract acceptance criteria?	/		
7. Is the LCS Minimum Detectable Activity ≤ the Contract Detection Limit?	/		
8. Do the MS/MSD results and yields meet acceptance criteria?			/
9. Do the duplicate sample results and yields meet acceptance criteria?	/		
C. Other 1. Are all Nonconformances included and noted?	/		
2. Are all required forms filled out?	/		
3. Was the correct methodology used?	/		
4. Was transcription checked?	/		
5. Were all calculations checked at a minimum frequency?	/		
6. Were units checked?	/		

Comments on any "No" response: See NCM

Second Level Review: Sheryl A Adam Date: 9-7-06

Clouseau
Nonconformance Memo

SEVERN TRENT SERVICES

NCM #: 10-08629
NCM Initiated By: Pam Anderson
Date Opened: 09/07/2006
Date Closed:

Classification: **Anomaly**
Status: **GLREVIEW**
Production Area: Environmental - Sep
Tests: UNat by KPA
Lot #'s (Sample #'s): J6G260132 (1,2), J6G310193 (1,2), J6H010306 (1,2), J6H030000 (548),
QC Batches: 6237250

Nonconformance: Other (describe in detail)
Subcategory: Other (explanation required)

Problem Description / Root Cause

Name	Date	Description
Pam Anderson	09/07/2006	The blank was just at CRDL for this total uranium batch. There were some high samples in the batch. The batch was reanalyzed with good results.

Corrective Action

Name	Date	Corrective Action
Pam Anderson	09/07/2006	The batch wa reanalyzed.

Client Notification Summary

Client	Project Manager	Notified	Response	How Notified	Note
	Response	Response Note			

Quality Assurance Verification

Verified By	Due Date	Status	Notes
		This section not yet completed by QA.	

Approval History

Date Approved	Approved By	Position

PNNL J6G260132
W04971
Due 9.8.06

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # **W06-007-144**

Page 1 of 1

Collector DURATEK F. M. HALL	**Contact/Requester** Dot Stewart	**Telephone No.** 509-376-5056 **MSIN** **FAX**
SAF No. W06-007	**Sampling Origin** Hanford Site	**Purchase Order/Charge Code**
Project Title RCRA, JULY 2006	DTS-SAWS-1104	**Ice Chest No.** GUN L 442 **Temp.**
Shipped To (Lab) Severn Trent Incorporated, Richland	**Method of Shipment** Govt. Vehicle	**Bill of Lading/Air Bill No.**
Protocol RCRA	**Priority:** 45 Days	**Offsite Property No.**

POSSIBLE SAMPLE HAZARDS/REMARKS
** **

SPECIAL INSTRUCTIONS **Hold Time** Total Activity Exemption: Yes ☑ No ☐
Batch all PNNL GW samples submitted under "W", "S", "I", "A" or "G" 06 SAFs into one SDG, not to exceed SDG closure of 14 days.
Submit invoices & deliverables to DL Stewart, PNNL

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1JLJ8		W	7-25-06	1007	1x20-mL P	Activity Scan	None
B1JLJ8		W	↓	↓	1x500-mL G/P	UTOT_KPA: Uranium (1) H91MC	HNO3 to pH <2

Relinquished By DURATEK F. M. HALL Print / Sign	Date/Time 1447 JUL 25 2006	Received By L. Welch Print / S. Welch Sign	Date/Time 1447 JUL 25 2006
Relinquished By	Date/Time	Received By	Date/Time
Relinquished By	Date/Time	Received By	Date/Time
Relinquished By	Date/Time	Received By	Date/Time

Matrix *

S = Soil		DS = Drum Solid	
SE = Sediment		DL = Drum Liqui	
SO = Solid		T = Tissue	
SL = Sludge		WI = Wine	
W = Water		L = Liquid	
O = Oil		V = Vegetation	
A = Air		X = Other	

FINAL SAMPLE DISPOSITION Disposal Method (e.g., Return to customer, per lab procedure, used in process) Disposed By Date/Time

PNNL J6G260132
W04971
Due 9-8-06

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # **W06-007-150**

Page 1 of 1

Collector DURATEK F. M. HALL	**Contact/Requester** Dot Stewart	**Telephone No.** 509-376-5056 **MSIN** **FAX**
SAF No. W06-007	**Sampling Origin** Hanford Site	**Purchase Order/Charge Code**
Project Title RCRA, JULY 2006	DTS-SAWS-HOH	**Ice Chest No.** SML-442 **Temp.**
Shipped To (Lab) Severn Trent Incorporated, Richland	**Method of Shipment** Govt. Vehicle	**Bill of Lading/Air Bill No.**
Protocol RCRA	**Priority:** 45 Days	**Offsite Property No.**

POSSIBLE SAMPLE HAZARDS/REMARKS
** **

SPECIAL INSTRUCTIONS **Hold Time** Total Activity Exemption: Yes ☑ No ☐
Batch all PNNL GW samples submitted under "W", "S", "I", "A" or "G" 06 SAFs into one SDG, not to exceed SDG closure of 14 days.
Submit invoices & deliverables to DL Stewart, PNNL

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1JLK1		W	7/25/06	1120	1x20-mL P	Activity Scan	None
B1JLK1		W	↓	↓	1x500-mL G/P	UTOT_KPA: Uranium (1) H91MR	HNO3 to pH <2

Relinquished By DURATEK F. M. HALL Print / Sign	Date/Time 1447 JUL 25 2006	Received By L. Welch Print / S. Welch Sign	Date/Time 1447 JUL 25 2006
Relinquished By	Date/Time	Received By	Date/Time
Relinquished By	Date/Time	Received By	Date/Time
Relinquished By	Date/Time	Received By	Date/Time

Matrix *

S = Soil		DS = Drum Solid	
SE = Sediment		DL = Drum Liqui	
SO = Solid		T = Tissue	
SL = Sludge		WI = Wine	
W = Water		L = Liquid	
O = Oil		V = Vegetation	
A = Air		X = Other	

FINAL SAMPLE DISPOSITION Disposal Method (e.g., Return to customer, per lab procedure, used in process) | Disposed By | Date/Time

SEVERN TRENT STL

Sample Check-in List

Date/Time Received: 7.25.06 14:47

Client: PEW SDG #: W04971 NA [ ] SAF #: W06-007 NA [ ]

Work Order Number: 166260132 Chain of Custody # W06-007, 150, 144

Shipping Container ID: SML442 Air Bill # N/A

1. Custody Seals on shipping container intact? NA [ ] Yes [ ] No [ ]
2. Custody Seals dated and signed? NA [ ] Yes [ ] No [ ]
3. Chain of Custody record present? Yes [ ] No [ ]
4. Cooler temperature: _____ NA [ ] 5: Vermiculite/packing materials is NA [ ] Wet [ ] Dry [ ]
6. Number of samples in shipping container: 2
7. Sample holding times exceeded? NA [ ] Yes [ ] No [ ]
8. Samples have:
   _____ tape
   _____ custody seals
   _____ hazard labels
   _____ appropriate samples labels
9. Samples are:
   _____ in good condition
   _____ broken
   _____ leaking
   _____ have air bubbles
   (Only for samples requiring head space)
10. Sample pH taken? NA [ ] pH<2 [ ] pH>2 [ ] adjusted pH [ ]
11. Sample Location, Sample Collector Listed? *
    *For documentation only. No corrective action needed. Yes [ ] No [ ]
12. Were any anomalies identified in sample receipt? Yes [ ] No [ ]
13. Description of anomalies (include sample numbers): N/A

Sample Custodian: S. Welch Date: 7.25.06 14:47

Client Sample ID	Analysis Requested	Condition	Comments/Action

Client Informed on _____ by _____ Person contacted _____

[ ] No action necessary; process as is.

Project Manager _____ Date _____

PNNL J6G310193
W04971

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

Due 9.14.06

C.O.C. # **W06-007-120**

Page 1 of 1

Collector DURATEK D. R. BREAKINGTON	**Contact/Requester** Dot Stewart	**Telephone No.** 509-376-5056 **MSIN** **FAX**
SAF No. W06-007	**Sampling Origin** Hanford Site	**Purchase Order/Charge Code**
Project Title RCRA, JULY 2006	Logbook: DTS-SAWS-H104	**Ice Chest No.** SML-442 **Temp.**
Shipped To (Lab) Severn Trent Incorporated, Richland	**Method of Shipment** Govt. Vehicle	**Bill of Lading/Air Bill No.**
Protocol RCRA	**Priority:** 45 Days	**Offsite Property No.**

POSSIBLE SAMPLE HAZARDS/REMARKS
** **

SPECIAL INSTRUCTIONS **Hold Time** Total Activity Exemption: Yes ☑ No ☐
Batch all PNNL GW samples submitted under "W", "S", "I", "A" or "G" 06 SAFs into one SDG, not to exceed SDG closure of 14 days.
Submit invoices & deliverables to DL Stewart, PNNL

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1JLH6		W	7/31/06	1201	1x20-mL P	Activity Scan	None
B1JLH6		W	↓	↓	1x500-mL G/P	UTOT_KPA: Uranium (1) JAC4R	HNO3 to pH <2

R. Wall 7/31/06

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
DURATEK D. R. BREAKINGTON	D R Breakington		JUL 31 2006 1405	D. Welch	S. Welch		JUL 31 2006 1405
Relinquished By			Date/Time	Received By			Date/Time
Relinquished By			Date/Time	Received By			Date/Time
Relinquished By			Date/Time	Received By			Date/Time

Matrix *

S = Soil		DS = Drum Solid	
SE = Sediment		DL = Drum Liqui	
SO = Solid		T = Tissue	
SL = Sludge		WI = Wine	
W = Water		L = Liquid	
O = Oil		V = Vegetation	
A = Air		X = Other	

FINAL SAMPLE DISPOSITION	Disposal Method (e.g., Return to customer, per lab procedure, used in process)	Disposed By	Date/Time

PNNL J6G310193
W04971
DURATEK
Due 9.14.06

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # **W06-007-126**

Page 1 of 1

Collector D.R. BRENNINGTON	**Contact/Requester** Dot Stewart	**Telephone No.** 509-376-5056 **MSIN** **FAX**
SAF No. W06-007	**Sampling Origin** Hanford Site	**Purchase Order/Charge Code**
Project Title RCRA, JULY 2006	Logbook: DTS-SAWS-H104	**Ice Chest No.** SML-442 **Temp.**
Shipped To (Lab) Severn Trent Incornorated, Richland	**Method of Shipment** Govt. Vehicle	**Bill of Lading/Air Bill No.**
Protocol RCRA	**Priority:** 45 Days	**Offsite Property No.**

POSSIBLE SAMPLE HAZARDS/REMARKS
** **

SPECIAL INSTRUCTIONS **Hold Time** Total Activity Exemption: Yes ☑ No ☐
Batch all PNNL GW samples submitted under "W", "S", "T", "A" or "G" 06 SAFs into one SDG, not to exceed SDG closure of 14 days.
Submit invoices & deliverables to DL Stewart, PNNL

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1JLH9		W	7/31/06	1325	1x20-mL P	Activity Scan	None
B1JLH9		W	↓	↓	1x500-mL G/P	UTOT_KPA: Uranium (1) JAC4T	HNO3 to pH <2

S. Welch 7/31/06

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
DURATEK D.R. BRENNINGTON	D.R. Brennington		JUL 31 2006 1405	S. Welch	S. Welch		JUL 31 2006 1405
Relinquished By			Date/Time	Received By			Date/Time
Relinquished By			Date/Time	Received By			Date/Time
Relinquished By			Date/Time	Received By			Date/Time

Matrix *

S = Soil		DS = Drum Solid	
SE = Sediment		DL = Drum Liqui	
SO = Solid		T = Tissue	
SL = Sludge		WI = Wine	
W = Water		L = Liquid	
O = Oil		V = Vegetation	
A = Air		X = Other	

FINAL SAMPLE DISPOSITION	Disposal Method (e.g., Return to customer, per lab procedure, used in process)	Disposed By	Date/Time

SEVERN TRENT STL

Sample Check-in List

Date/Time Received: 7.31.06 14:05

Client: PGW SDG #: W049771 NA [ ] SAF #: W06-007 NA [ ]

Work Order Number: J6G310193 Chain of Custody # W06-007-120, 126

Shipping Container ID: SML-442 Air Bill # N/A

1. Custody Seals on shipping container intact? NA [ ] Yes [X] No [ ]
2. Custody Seals dated and signed? NA [ ] Yes [X] No [ ]
3. Chain of Custody record present? Yes [X] No [ ]
4. Cooler temperature: _____ NA [X] 5: Vermiculite/packing materials is NA [X] Wet [ ] Dry [ ]
6. Number of samples in shipping container: 9
7. Sample holding times exceeded? NA [X] Yes [ ] No [ ]
8. Samples have:
   _____tape
   _____custody seals
   _____hazard labels
   _____appropriate samples labels
9. Samples are:
   ___X___in good condition
   _____broken
   _____leaking
   _____have air bubbles
   (Only for samples requiring head space)
10. Sample pH taken? NA [ ] pH<2 [X] pH>2 [ ] adjusted pH [ ]
11. Sample Location, Sample Collector Listed? *
    *For documentation only. No corrective action needed. Yes [X] No [ ]
12. Were any anomalies identified in sample receipt? Yes [ ] No [X]
13. Description of anomalies (include sample numbers): N/A

Sample Custodian: L. Welch Date: 7.31.06 14:05

Client Sample ID	Analysis Requested	Condition	Comments/Action

Client Informed on _____ by _____ Person contacted _____

[ ] No action necessary; process as is.

Project Manager _____ Date _____

PNNL J6H010297
W04971 Due 9-15-06

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # **I06-055-110**

Page 1 of 1

Collector D. P. CONNOLLY	**Contact/Requester** Dot Stewart	**Telephone No.** 509-376-5056 **MSIN** **FAX**
SAF No. I06-055	**Sampling Origin** Hanford Site	**Purchase Order/Charge Code**
Project Title 2ZP1-LOI, AUGUST 2006	DTS-SAWS-H104	**Ice Chest No.** SMC-442 **Temp.**
Shipped To (Lab) Severn Trent Incorporated, Richland	**Method of Shipment** Govt. Vehicle	**Bill of Lading/Air Bill No.**
Protocol CERCLA	**Priority:** 45 Days	**Offsite Property No.**

POSSIBLE SAMPLE HAZARDS/REMARKS
** **

SPECIAL INSTRUCTIONS **Hold Time** Total Activity Exemption: Yes ☑ No ☐
Batch all PNNL GW samples submitted under "W", "S", "I", "A" or "G" 06 SAFs into one SDG, not to exceed SDG closure of 14 days.
Submit invoices & deliverables to DL Stewart, PNNL

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1K649		W	8/1/6	1152	1x1000-mL P	906.0_H3_LSC: Tritium (1)	None
B1K649		W	↓	↓	1x20-mL P	Activity Scan JAE5J	None
B1K649		W	↓	↓	1x500-mL P	TC99_ETVDSK_LSC: Tc-99 (1)	HCl to pH <2

14:20 14:20

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
	D. P. CONNOLLY		AUG 01 2006		S. Welch	S. Welch	AUG 01 2006
Relinquished By			Date/Time	Received By			Date/Time
Relinquished By			Date/Time	Received By			Date/Time
Relinquished By			Date/Time	Received By			Date/Time

Matrix *

S = Soil		DS = Drum Solid	
SE = Sediment		DL = Drum Liqui	
SO = Solid		T = Tissue	
SL = Sludge		WI = Wine	
W = Water		L = Liquid	
O = Oil		V = Vegetation	
A = Air		X = Other	

FINAL SAMPLE DISPOSITION	Disposal Method (e.g., Return to customer, per lab procedure, used in process)	Disposed By	Date/Time

SEVERN TRENT STL

Sample Check-in List

Date/Time Received: 8.1.06 1420

Client: PGW SDG #: W04970 NA [ ] SAF #: I06-055 NA [ ]

Work Order Number: J6H010297 Chain of Custody # I06-055-110

Shipping Container ID: SML-442 Air Bill # N/A

1. Custody Seals on shipping container intact? NA [ ] Yes [ ] No [ ]
2. Custody Seals dated and signed? NA [ ] Yes [ ] No [ ]
3. Chain of Custody record present? Yes [ ] No [ ]
4. Cooler temperature: _____ NA [ ] 5: Vermiculite/packing materials is NA [ ] Wet [ ] Dry [ ]
6. Number of samples in shipping container: 1
7. Sample holding times exceeded? NA [ ] Yes [ ] No [ ]
8. Samples have:
   _____ tape
   _____ custody seals
   _____ hazard labels
   ✓ appropriate samples labels
9. Samples are:
   ✓ in good condition
   _____ broken
   _____ leaking
   _____ have air bubbles
   (Only for samples requiring head space)
10. Sample pH taken? NA [ ] pH<2 [ ] pH>2 [ ] adjusted pH [ ]
11. Sample Location, Sample Collector Listed? *
    *For documentation only. No corrective action needed. Yes [ ] No [ ]
12. Were any anomalies identified in sample receipt? Yes [ ] No [ ]
13. Description of anomalies (include sample numbers): N/A

Sample Custodian: L. Welch Date: 8.1.06 1420

Client Sample ID	Analysis Requested	Condition	Comments/Action

Client Informed on _____ by _____ Person contacted _____

[ ] No action necessary; process as is.

Project Manager _____ Date _____

PNNL J6H010299 W04971

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

Due 9-15-06

C.O.C. # **S06-007-48**

Page 1 of 1

Collector D. P. CONNOLLY	**Contact/Requester** Dot Stewart	**Telephone No.** 509-376-5056 **MSIN** **FAX**
SAF No. S06-007	**Sampling Origin** Hanford Site	**Purchase Order/Charge Code**
Project Title SURV, JULY 2006	SAWS-H106	**Ice Chest No.** SML 595 **Temp.**
Shipped To (Lab) Severn Trent Incorporated, Richland	**Method of Shipment** Govt. Vehicle	**Bill of Lading/Air Bill No.**
Protocol SURV	**Priority:** 45 Days	**Offsite Property No.**

POSSIBLE SAMPLE HAZARDS/REMARKS
** **

SPECIAL INSTRUCTIONS **Hold Time** Total Activity Exemption: Yes ☑ No ☐
Batch all PNNL GW samples submitted under "W", "S", "I", "A" or "G" 06 SAFs into one SDG, not to exceed SDG closure of 14 days.
Submit invoices & deliverables to DL Stewart, PNNL

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1JLB1		W	7-26-06	0838	1x1000-mL P	906.0_H3_LSC: Tritium (1)	None
B1JLB1		W	↓	↓	1x20-mL P	Activity Scan JAE53	None
B1JLB1		W	↓	↓	1x1000-mL P	9310_ALPHABETA_GPC: Alpha + Beta (2)	HNO3 to pH <2

Relinquished By	Print D. P. CONNOLLY	Sign	Date/Time 8/1/06 14:20 JUL 26 2006		Received By	Print S. Welch	Sign S. Welch	Date/Time 8/1/06 14:20 JUL 26 2006
Relinquished By			Date/Time		Received By			Date/Time
Relinquished By			Date/Time		Received By			Date/Time
Relinquished By			Date/Time		Received By			Date/Time

Matrix *

S = Soil		DS = Drum Solid	
SE = Sediment		DL = Drum Liqui	
SO = Solid		T = Tissue	
SL = Sludge		WI = Wine	
W = Water		L = Liquid	
O = Oil		V = Vegetation	
A = Air		X = Other	

FINAL SAMPLE DISPOSITION Disposal Method (e.g., Return to customer, per lab procedure, used in process) Disposed By Date/Time

SEVERN TRENT STL

Sample Check-in List

Date/Time Received: 8·1·06 14:20

Client: PBW SDG #: W04971 NA [ ] SAF #: 506-007 NA [ ]

Work Order Number: J6H010299 Chain of Custody # 506-007-48

Shipping Container ID: SmL-595 Air Bill # N/A

1. Custody Seals on shipping container intact? NA [ ] Yes [X] No [ ]
2. Custody Seals dated and signed? NA [ ] Yes [X] No [ ]
3. Chain of Custody record present? Yes [X] No [ ]
4. Cooler temperature: _____ NA [X] 5: Vermiculite/packing materials is NA [X] Wet [ ] Dry [ ]
6. Number of samples in shipping container: 1
7. Sample holding times exceeded? NA [X] Yes [ ] No [ ]
8. Samples have:
   _____ tape
   _____ custody seals
   _____ hazard labels
   ___< ___ appropriate samples labels
9. Samples are:
   ___< ___ in good condition
   _____ broken
   _____ leaking
   _____ have air bubbles
   (Only for samples requiring head space)
10. Sample pH taken? NA [ ] pH<2 [X] pH>2 [X] adjusted pH [ ]
11. Sample Location, Sample Collector Listed? * Yes [X] No [ ]
    *For documentation only. No corrective action needed.
12. Were any anomalies identified in sample receipt? Yes [ ] No [X]
13. Description of anomalies (include sample numbers): N/A

Sample Custodian: L. Welch Date: 8·1·06 14:20

Client Sample ID	Analysis Requested	Condition	Comments/Action

Client Informed on _____ by _____ Person contacted _____

[ ] No action necessary; process as is.

Project Manager _____ Date _____

PNNL J6H010301 W04971

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

Due 9.15.06

C.O.C. # W06-008-328

Page 1 of 1

Collector D. P. CONNOLLY	**Contact/Requester** Dot Stewart	**Telephone No.** 509-376-5056 **MSIN** **FAX**
SAF No. W06-008	**Sampling Origin** Hanford Site	**Purchase Order/Charge Code**
Project Title RCRA, AUGUST 2006	DTS - SAWS - H104	**Ice Chest No.** SML-442 **Temp.**
Shipped To (Lab) Severn Trent Incorporated, Richland	**Method of Shipment** Govt. Vehicle	**Bill of Lading/Air Bill No.**
Protocol RCRA	**Priority:** 45 Days	**Offsite Property No.**

POSSIBLE SAMPLE HAZARDS/REMARKS
** **

SPECIAL INSTRUCTIONS **Hold Time** Total Activity Exemption: Yes ☑ No ☐
Batch all PNNL GW samples submitted under "W", "S", "T", "A" or "G" 06 SAFs into one SDG, not to exceed SDG closure of 14 days.
Submit invoices & deliverables to DL Stewart, PNNL

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1K2Y1		W	8/1/6	0931	1x20-mL P	Activity Scan	None
B1K2Y1		W	↓	↓	1x1000-mL P	906.0_H3_LSC: Tritium (1) JAE59	None
B1K2Y1		W	↓	↓	1x500-mL P	TC99_ETVDSK_LSC: Tc-99 (1)	HCl to pH <2

Relinquished By	Print / Sign	Date/Time	Received By	Print / Sign	Date/Time
D. P. CONNOLLY		AUG 01 2006	S. Welch		AUG 01 2006
Relinquished By		Date/Time	Received By		Date/Time
Relinquished By		Date/Time	Received By		Date/Time
Relinquished By		Date/Time	Received By		Date/Time

14:20 14:20

Matrix *

S = Soil		DS = Drum Solid	
SE = Sediment		DL = Drum Liqui	
SO = Solid		T = Tissue	
SL = Sludge		WI = Wine	
W = Water		L = Liquid	
O = Oil		V = Vegetation	
A = Air		X = Other	

FINAL SAMPLE DISPOSITION	Disposal Method (e.g., Return to customer, per lab procedure, used in process)	Disposed By	Date/Time

PNNL J6H070301
W04971

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

Due 9-15-06

C.O.C. # **W06-008-322**

Page 1 of 1

Collector D. P. CONNOLLY	**Contact/Requester** Dot Stewart	**Telephone No.** 509-376-5056 **MSIN** **FAX**
SAF No. W06-008	**Sampling Origin** Hanford Site	**Purchase Order/Charge Code**
Project Title RCRA, AUGUST 2006	DTS-SAWS-H104	**Ice Chest No.** SML-442 **Temp.**
Shipped To (Lab) Severn Trent Incorporated, Richland	**Method of Shipment** Govt. Vehicle	**Bill of Lading/Air Bill No.**
Protocol RCRA	**Priority:** 45 Days	**Offsite Property No.**

POSSIBLE SAMPLE HAZARDS/REMARKS
** **

SPECIAL INSTRUCTIONS **Hold Time** Total Activity Exemption: Yes ☑ No ☐
Batch all PNNL GW samples submitted under "W", "S", "I", "A" or "G" 06 SAFs into one SDG, not to exceed SDG closure of 14 days.
Submit invoices & deliverables to DL Stewart, PNNL

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1K2Y5		W	8/1/06	1056	1x20-mL P	Activity Scan	None
B1K2Y5		W	↓	↓	1x1000-mL P	906.0_H3_LSC: Tritium (1) JAE6C	None
B1K2Y5		W	↓	↓	1x500-mL P	TC99_ETVDSK_LSC: Tc-99 (1)	HCl to pH <2

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
D. P. CONNOLLY	D. P. CONNOLLY		AUG 01 2006 14:20	S. Welch	S. Welch		AUG 01 2006 14:20
Relinquished By			Date/Time	Received By			Date/Time
Relinquished By			Date/Time	Received By			Date/Time
Relinquished By			Date/Time	Received By			Date/Time

Matrix *

S = Soil		DS = Drum Solid	
SE = Sediment		DL = Drum Liqui	
SO = Solid		T = Tissue	
SL = Sludge		WI = Wine	
W = Water		L = Liquid	
O = Oil		V = Vegetation	
A = Air		X = Other	

FINAL SAMPLE DISPOSITION	Disposal Method (e.g., Return to customer, per lab procedure, used in process)	Disposed By	Date/Time

PNNL 16H010307
W04971 Due 9-15-06

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # **W06-008-316**

Page 1 of 1

Collector R. T. SICKLE	**Contact/Requester** Dot Stewart	**Telephone No.** 509-376-5056 **MSIN** **FAX**
SAF No. W06-008	**Sampling Origin** Hanford Site	**Purchase Order/Charge Code**
Project Title RCRA, AUGUST 2006	Logbook: DTS-SAWS-H106	**Ice Chest No.** SNL-595 **Temp.**
Shipped To (Lab) Severn Trent Incorporated, Richland	**Method of Shipment** Govt. Vehicle	**Bill of Lading/Air Bill No.**
Protocol RCRA	**Priority:** 45 Days	**Offsite Property No.**

POSSIBLE SAMPLE HAZARDS/REMARKS
** **

SPECIAL INSTRUCTIONS **Hold Time** Total Activity Exemption: Yes ☑ No ☐
Batch all PNNL GW samples submitted under "W", "S", "T", "A" or "G" 06 SAFs into one SDG, not to exceed SDG closure of 14 days.
Submit invoices & deliverables to DL Stewart, PNNL

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1K2Y9		W	8/1/06	1216	1x20-mL P	Activity Scan	None
B1K2Y9		W	↓	↓	1x1000-mL P	906.0_H3_LSC: Tritium (1)	None
B1K2Y9		W	↓	↓	1x500-mL P	TC99_ETVDSK_LSC: Tc-99 (1) JAE6D	HCl to pH <2
B1K2Y9		W	↓	↓	2x4000-mL G/P	I129LL_SEP_LEPS_GS_LL: I-129 (1)	None

R. Welch 8/1/06

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
	R. T. SICKLE		AUG 0 1 2006 14:20	L. Welch	S. Welch		AUG 0 1 2006 14:20
Relinquished By			Date/Time	Received By			Date/Time
Relinquished By			Date/Time	Received By			Date/Time
Relinquished By			Date/Time	Received By			Date/Time

Matrix *

S = Soil		DS = Drum Solid	
SE = Sediment		DL = Drum Liqui	
SO = Solid		T = Tissue	
SL = Sludge		WI = Wine	
W = Water		L = Liquid	
O = Oil		V = Vegetation	
A = Air		X = Other	

FINAL SAMPLE DISPOSITION	Disposal Method (e.g., Return to customer, per lab procedure, used in process)	Disposed By	Date/Time

PNNL J6H070307
W04971
Due 9-15-06

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # **W06-008-298**

Page 1 of 1

Collector R. T. SICKLE	**Contact/Requester** Dot Stewart	**Telephone No.** 509-376-5056 **MSIN** **FAX**
SAF No. W06-008	**Sampling Origin** Hanford Site	**Purchase Order/Charge Code**
Project Title RCRA, AUGUST 2006	Logbook: OTS-SAWS-H106	**Ice Chest No.** SML-595 **Temp.**
Shipped To (Lab) Severn Trent Incorporated, Richland	**Method of Shipment** Govt. Vehicle	**Bill of Lading/Air Bill No.**
Protocol RCRA	**Priority:** 45 Days	**Offsite Property No.**

POSSIBLE SAMPLE HAZARDS/REMARKS
** **

SPECIAL INSTRUCTIONS **Hold Time** Total Activity Exemption: Yes ☑ No ☐
Batch all PNNL GW samples submitted under "W", "S", "I", "A" or "G" 06 SAFs into one SDG, not to exceed SDG closure of 14 days.
Submit invoices & deliverables to DL Stewart, PNNL

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1K2W3		W	8/1/06	1116	1x20-mL P	Activity Scan	None
B1K2W3		W	↓	↓	1x1000-mL P	906.0_H3_LSC: Tritium (1)	None
B1K2W3		W	↓	↓	1x500-mL P	TC99_ETVDSK_LSC: Tc-99 (1) JAE6K	HCl to pH <2
B1K2W3		W	↓	↓	2x4000-mL G/P	I129LL_SEP_LEPS_GS_LL: I-129 (1)	None

L. Welch 8/1/06

Relinquished By	Print / Sign	Date/Time	Received By	Print / Sign	Date/Time
R. T. SICKLE	[signature]	AUG 0 1 2006 14:20	L. Welch	S. Welch	AUG 0 1 2006 14:30
Relinquished By		Date/Time	Received By		Date/Time
Relinquished By		Date/Time	Received By		Date/Time
Relinquished By		Date/Time	Received By		Date/Time

Matrix *

S = Soil		DS = Drum Solid	
SE = Sediment		DL = Drum Liqui	
SO = Solid		T = Tissue	
SL = Sludge		WI = Wipe	
W = Water		L = Liquid	
O = Oil		V = Vegetation	
A = Air		X = Other	

FINAL SAMPLE DISPOSITION	Disposal Method (e.g., Return to customer, per lab procedure, used in process)	Disposed By	Date/Time

PNNL J6H010301
W04971
Due 9-15-06

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # **W06-008-310**

Page 1 of 1

Collector R.T. SICKLE	**Contact/Requester** Dot Stewart	**Telephone No.** 509-376-5056 **MSIN** **FAX**
SAF No. W06-008	**Sampling Origin** Hanford Site	**Purchase Order/Charge Code**
Project Title RCRA, AUGUST 2006	Logbook: DTS-SAWS-H106	**Ice Chest No.** SML-595 **Temp.**
Shipped To (Lab) Severn Trent Incorporated, Richland	**Method of Shipment** Govt. Vehicle	**Bill of Lading/Air Bill No.**
Protocol RCRA	**Priority:** 45 Days	**Offsite Property No.**

POSSIBLE SAMPLE HAZARDS/REMARKS
** **

SPECIAL INSTRUCTIONS **Hold Time** Total Activity Exemption: Yes ☑ No ☐
Batch all PNNL GW samples submitted under "W", "S", "I", "A" or "G" 06 SAFs into one SDG, not to exceed SDG closure of 14 days.
Submit invoices & deliverables to DL Stewart, PNNL

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1K2W7		W	8/1/06	1019	1x20-mL P	Activity Scan	None
B1K2W7		W	↓	↓	1x1000-mL P	906.0_H3_LSC: Tritium (1)	None
B1K2W7		W	↓	↓	1x500-mL P	TC99_ETVDSK_LSC: Tc-99 (1) JAEGR	HCl to pH <2
B1K2W7		W	↓	↓	2x4000-mL G/P	I129LL_SEP_LEPS_GS_LL: I-129 (1)	None
			R. Lowell				
					8/1/06		

Relinquished By ~~Print~~ R.T. SICKLE	Sign	Date/Time AUG 01 2006 14:20	Received By L. Welch	Print L. Welch Sign	Date/Time AUG 01 2006 14:20
Relinquished By		Date/Time	Received By		Date/Time
Relinquished By		Date/Time	Received By		Date/Time
Relinquished By		Date/Time	Received By		Date/Time

Matrix *

S = Soil		DS = Drum Solid	
SE = Sediment		DL = Drum Liquid	
SO = Solid		T = Tissue	
SL = Sludge		WI = Wine	
W = Water		L = Liquid	
O = Oil		V = Vegetation	
A = Air		X = Other	

FINAL SAMPLE DISPOSITION	Disposal Method (e.g., Return to customer, per lab procedure, used in process)	Disposed By	Date/Time

PNNL J6H070307
W04971
Due 9-15-06

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # **W06-008-304**

Page 1 of 1

Collector R. T. SICKLE	**Contact/Requester** Dot Stewart	**Telephone No.** 509-376-5056 **MSIN** **FAX**
SAF No. W06-008	**Sampling Origin** Hanford Site	**Purchase Order/Charge Code**
Project Title RCRA, AUGUST 2006	Logbook: DTS-SAWS-H106	**Ice Chest No.** SNL-595 **Temp.**
Shipped To (Lab) Severn Trent Incorporated, Richland	**Method of Shipment** Govt. Vehicle	**Bill of Lading/Air Bill No.**
Protocol RCRA	**Priority:** 45 Days	**Offsite Property No.**

POSSIBLE SAMPLE HAZARDS/REMARKS
** **

SPECIAL INSTRUCTIONS **Hold Time** Total Activity Exemption: Yes ☑ No ☐
Batch all PNNL GW samples submitted under "W", "S", "I", "A" or "G" 06 SAFs into one SDG, not to exceed SDG closure of 14 days.
Submit invoices & deliverables to DL Stewart, PNNL

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1K303		W	8/1/06	0915	1x20-mL P	Activity Scan	None
B1K303		W	↓	↓	1x1000-mL P	906.0_H3_LSC: Tritium (1)	None
B1K303		W	↓	↓	1x500-mL P	TC99_ETVDSK_LSC: Tc-99 (1) JAE6T	HCl to pH <2
B1K303		W	↓	↓	2x4000-mL G/P	I129LL_SEP_LEPS_GS_LL: I-129 (1)	None
			L. Welch	8/1/06			

Relinquished By (Print / Sign)	Date/Time	Received By (Print / Sign)	Date/Time
R. T. SICKLE	AUG 01 2006 14:20	L. Welch / S. Welch	AUG 01 2006 14:20
Relinquished By	Date/Time	Received By	Date/Time
Relinquished By	Date/Time	Received By	Date/Time
Relinquished By	Date/Time	Received By	Date/Time

Matrix *

S = Soil		DS = Drum Solid	
SE = Sediment		DL = Drum Liqui	
SO = Solid		T = Tissue	
SL = Sludge		WI = Wine	
W = Water		L = Liquid	
O = Oil		V = Vegetation	
A = Air		X = Other	

FINAL SAMPLE DISPOSITION Disposal Method (e.g., Return to customer, per lab procedure, used in process) | Disposed By | Date/Time

SEVERN TRENT STL

Sample Check-in List

Date/Time Received: 8·1·06 14:20

Client: PGW SDG #: W04971 NA [ ] SAF #: W06-008 NA [ ]

Work Order Number: J6H010307 Chain of Custody # W06-008-328, 322, 316, 298, 210, 304

Shipping Container ID: SML-442, 595 Air Bill # N/A

1. Custody Seals on shipping container intact? NA [ ] Yes [X] No [ ]
2. Custody Seals dated and signed? NA [ ] Yes [X] No [ ]
3. Chain of Custody record present? Yes [X] No [ ]
4. Cooler temperature: _____ NA [X] 5: Vermiculite/packing materials is NA [X] Wet [ ] Dry [ ]
6. Number of samples in shipping container: 6
7. Sample holding times exceeded? NA [X] Yes [ ] No [ ]
8. Samples have:
   _____ tape
   _____ custody seals
   _____ hazard labels
   ✓ appropriate samples labels
9. Samples are:
   ✓ in good condition
   _____ broken
   _____ leaking
   _____ have air bubbles
   (Only for samples requiring head space)
10. Sample pH taken? NA [ ] pH<2 [X] pH>2 [X] adjusted pH [ ]
11. Sample Location, Sample Collector Listed? *
    *For documentation only. No corrective action needed. Yes [X] No [ ]
12. Were any anomalies identified in sample receipt? Yes [ ] No [X]
13. Description of anomalies (include sample numbers): N/A

Sample Custodian: A. Welch Date: 8·1·06 14:20

Client Sample ID	Analysis Requested	Condition	Comments/Action

Client Informed on _____ by _____ Person contacted _____

[ ] No action necessary; process as is.

Project Manager _____ Date _____

PNNL J6H010303
W04971 Due 9-15-06

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # **G06-007-7**

Page 1 of 1

Collector D. P. CONNOLLY	**Contact/Requester** Dot Stewart	**Telephone No.** 509-376-5056 **MSIN** **FAX**
SAF No. G06-007	**Sampling Origin** Hanford Site	**Purchase Order/Charge Code**
Project Title 1NR2-RB, JULY 2006	SAWS-H106	**Ice Chest No.** SML 595 **Temp.**
Shipped To (Lab) Severn Trent Incornorated, Richland	**Method of Shipment** Govt. Vehicle	**Bill of Lading/Air Bill No.**
Protocol SURV	**Priority:** 45 Days	**Offsite Property No.**

POSSIBLE SAMPLE HAZARDS/REMARKS
** **

SPECIAL INSTRUCTIONS **Hold Time** Total Activity Exemption: Yes ☑ No ☐
Batch all PNNL GW samples submitted under "W", "S", "I", "A" or "G" 06 SAFs into one SDG, not to exceed SDG closure of 14 days.
Submit invoices & deliverables to DL Stewart, PNNL

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1JK54		W	7-26-06	0947	1x20-mL P	Activity Scan	None
B1JK54		W	"	"	1x1000-mL P	906.0_H3_LSC: Tritium (1) JAEGW	None
B1JK54		W	"	"	1x1000-mL P	9310_ALPHABETA_GPC: Alpha + Beta (2)	HNO3 to pH <2
B1JK54		W	"	"	3x1000-mL G/P	GAMMA_GS: List-1 (10)	HNO3 to pH <2
B1JK54		W	"	"	3x1000-mL G/P	SRISO_SEP_PRECIP_GPC: Sr-90 (1)	HNO3 to pH <2
				LW. 8/1/06		LW. 8/1/06	

Relinquished By	Print D. P. CONNOLLY	Sign	Date/Time 8/1/06 14:20 JUL 26 2006	Received By	Print L. Welch	Sign S. Welch	Date/Time 8/1/06 14:20 JUL 26 2006
Relinquished By			Date/Time	Received By			Date/Time
Relinquished By			Date/Time	Received By			Date/Time
Relinquished By			Date/Time	Received By			Date/Time

Matrix *

S = Soil		DS = Drum Solid	
SE = Sediment		DL = Drum Liqui	
SO = Solid		T = Tissue	
SL = Sludge		WI = Wine	
W = Water		L = Liquid	
O = Oil		V = Vegetation	
A = Air		X = Other	

FINAL SAMPLE DISPOSITION Disposal Method (e.g., Return to customer, per lab procedure, used in process) Disposed By Date/Time

PNNL J6H010303
W04971
Due 9-15-06

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # **G06-007-10**

Page 1 of 1

Collector D.P. CONNOLLY	**Contact/Requester** Dot Stewart	**Telephone No.** 509-376-5056 **MSIN** **FAX**
SAF No. G06-007	**Sampling Origin** Hanford Site	**Purchase Order/Charge Code**
Project Title 1NR2-RB, JULY 2006	SAWS-4106	**Ice Chest No.** SML 595 **Temp.**
Shipped To (Lab) Severn Trent Incorporated, Richland	**Method of Shipment** Govt. Vehicle	**Bill of Lading/Air Bill No.**
Protocol SURV	**Priority:** 45 Days	**Offsite Property No.**

POSSIBLE SAMPLE HAZARDS/REMARKS
** **

SPECIAL INSTRUCTIONS **Hold Time** Total Activity Exemption: Yes ☑ No ☐
Batch all PNNL GW samples submitted under "W", "S", "I", "A" or "G" 06 SAFs into one SDG, not to exceed SDG closure of 14 days.
Submit invoices & deliverables to DL Stewart, PNNL

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1JK58		W	7-26-06	1027	1x20-mL P	Activity Scan	None
B1JK58		W	↓	↓	1x1000-mL P	906.0_H3_LSC: Tritium (1)	None
B1JK58		W			1x1000-mL P	9310_ALPHABETA_GPC: Alpha + Beta (2) JAE6X	HNO3 to pH <2
B1JK58		W			3x1000-mL G/P	GAMMA_GS: List-1 (10)	HNO3 to pH <2
B1JK58		W			3x1000-mL G/P	SRISO_SEP_PRECIP_GPC: Sr-90 (1)	HNO3 to pH <2

Relinquished By	Print / Sign	Date/Time	Received By	Print / Sign	Date/Time
D.P. CONNOLLY		8/1/06 1432 JUL 26 2006	S. Welch	S. Welch	8/1/06 1420 JUL 26 2006
Relinquished By		Date/Time	Received By		Date/Time
Relinquished By		Date/Time	Received By		Date/Time
Relinquished By		Date/Time	Received By		Date/Time

Matrix *

S = Soil		DS = Drum Solid	
SE = Sediment		DL = Drum Liqui	
SO = Solid		T = Tissue	
SL = Sludge		WI = Wine	
W = Water		L = Liquid	
O = Oil		V = Vegetation	
A = Air		X = Other	

FINAL SAMPLE DISPOSITION Disposal Method (e.g., Return to customer, per lab procedure, used in process) Disposed By Date/Time

SEVERN TRENT STL

Sample Check-in List

Date/Time Received: 8.1.06 14:20

Client: PGW SDG #: W04971 NA [ ] SAF #: G06-007 NA [ ]

Work Order Number: 14070303 Chain of Custody # G06-007-7, 10

Shipping Container ID: SML595 Air Bill # N/A

1. Custody Seals on shipping container intact? NA [ ] Yes [X] No [ ]
2. Custody Seals dated and signed? NA [ ] Yes [X] No [ ]
3. Chain of Custody record present? Yes [X] No [ ]
4. Cooler temperature: _____ NA [X] 5: Vermiculite/packing materials is NA [X] Wet [ ] Dry [ ]
6. Number of samples in shipping container: 2
7. Sample holding times exceeded? NA [X] Yes [ ] No [ ]
8. Samples have:
   _____tape
   _____custody seals
   X hazard labels
   X appropriate samples labels
9. Samples are:
   X in good condition
   _____broken
   _____leaking
   _____have air bubbles
   (Only for samples requiring head space)
10. Sample pH taken? NA [ ] pH<2 [X] pH>2 [X] adjusted pH [ ]
11. Sample Location, Sample Collector Listed? *
    *For documentation only. No corrective action needed. Yes [X] No [ ]
12. Were any anomalies identified in sample receipt? Yes [ ] No [X]
13. Description of anomalies (include sample numbers): N/A

Sample Custodian: L. Welch Date: 8.1.06 14:20

Client Sample ID	Analysis Requested	Condition	Comments/Action

Client Informed on _____ by _____ Person contacted _____

[ ] No action necessary; process as is.

Project Manager _____ Date _____

PNNL J6H010305 W04971

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

Due 9.15.06

C.O.C. # **I06-055-122**

Page 1 of 1

Collector DURATEK F. M. HALL	**Contact/Requester** Dot Stewart	**Telephone No.** 509-376-5056 **MSIN** **FAX**
SAF No. I06-055	**Sampling Origin** Hanford Site	**Purchase Order/Charge Code**
Project Title 2ZP1-LOI, AUGUST 2006	DTS- SAMS H109	**Ice Chest No.** SAMS 320 **Temp.**
Shipped To (Lab) Severn Trent Incorporated, Richland	**Method of Shipment** Govt. Vehicle	**Bill of Lading/Air Bill No.**
Protocol CERCLA	**Priority:** 45 Days	**Offsite Property No.**

POSSIBLE SAMPLE HAZARDS/REMARKS
** **

SPECIAL INSTRUCTIONS **Hold Time** Total Activity Exemption: Yes ☑ No ☐
Batch all PNNL GW samples submitted under "W", "S", "I", "A" or "G" 06 SAFs into one SDG, not to exceed SDG closure of 14 days.
Submit invoices & deliverables to DL Stewart, PNNL

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1K657		W	8-1-06	0957	1x1000-mL P	906.0_H3_LSC: Tritium (1)	None
B1K657		W	↓	↓	1x20-mL P	Activity Scan	None
B1K657		W	↓	↓	2x4000-mL G/P	I129LL_SEP_LEPS_GS_LL: I-129 (1) JAEGI	None
B1K657		W	↓	↓	1x500-mL P	TC99_ETVDSK_LSC: Tc-99 (1)	HCl to pH <2

Relinquished By DURATEK F. M. HALL Print Sign	Date/Time AUG 01 2006 15:00	Received By S. Welch Print S. Welch Sign	Date/Time AUG 01 2006 15:00
Relinquished By	Date/Time	Received By	Date/Time
Relinquished By	Date/Time	Received By	Date/Time
Relinquished By	Date/Time	Received By	Date/Time

Matrix *

S = Soil		DS = Drum Solid	
SE = Sediment		DL = Drum Liqui	
SO = Solid		T = Tissue	
SL = Sludge		WI = Wine	
W = Water		L = Liquid	
O = Oil		V = Vegetation	
A = Air		X = Other	

FINAL SAMPLE DISPOSITION	Disposal Method (e.g., Return to customer, per lab procedure, used in process)	Disposed By	Date/Time

PNNL J6H010305 W04971 Due 9-15-06

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # **I06-055-170**

Page 1 of 1

Collector DURATEK F. M. HALL	**Contact/Requester** Dot Stewart	**Telephone No.** 509-376-5056 **MSIN** **FAX**
SAF No. I06-055	**Sampling Origin** Hanford Site	**Purchase Order/Charge Code**
Project Title 2ZP1-LOI, AUGUST 2006	DTS Shows H109	**Ice Chest No.** Shows 370 **Temp.**
Shipped To (Lab) Severn Trent Incorporated, Richland	**Method of Shipment** Govt. Vehicle	**Bill of Lading/Air Bill No.**
Protocol CERCLA	**Priority:** 45 Days	**Offsite Property No.**

POSSIBLE SAMPLE HAZARDS/REMARKS
** **

SPECIAL INSTRUCTIONS **Hold Time** Total Activity Exemption: Yes ☑ No ☐
Batch all PNNL GW samples submitted under "W", "S", "I", "A" or "G" 06 SAFs into one SDG, not to exceed SDG closure of 14 days.
Submit invoices & deliverables to DL Stewart, PNNL

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1K688		W	8-1-06	1107	1x1000-mL P	906.0_H3_LSC: Tritium (1)	None
B1K688		W	8-1-06	↓	1x20-mL P	Activity Scan JAE64 SKS 8/2/06	None
B1K688		W	↓	↓	2x4000-mL G/P	I129LL_SEP_LEPS_GS_LL: I-129 (1) JAGEM	None
B1K688		W	↓	↓	1x500-mL P	TC99_ETVDSK_LSC: Tc-99 (1)	HCl to pH <2

15:00 15:00

Relinquished By DURATEK F. M. HALL	Print	Sign	Date/Time AUG 0 1 2006	Received By L. Welch	Print S. Welch	Sign	Date/Time AUG 0 1 2006
Relinquished By			Date/Time	Received By			Date/Time
Relinquished By			Date/Time	Received By			Date/Time
Relinquished By			Date/Time	Received By			Date/Time

Matrix *

S = Soil		DS = Drum Solid	
SE = Sediment		DL = Drum Liqui	
SO = Solid		T = Tissue	
SL = Sludge		WI = Wine	
W = Water		L = Liquid	
O = Oil		V = Vegetation	
A = Air		X = Other	

FINAL SAMPLE DISPOSITION	Disposal Method (e.g., Return to customer, per lab procedure, used in process)	Disposed By	Date/Time

SEVERN TRENT STL

Sample Check-in List

Date/Time Received: 8-1-06 15:00

Client: P&W SDG #: W04971 NA [ ] SAF #: I06-055 NA [ ]

Work Order Number: J6H010305 Chain of Custody # I06-055-122,170

Shipping Container ID: SAWS-370 Air Bill # N/A

1. Custody Seals on shipping container intact? NA [ ] Yes [ ] No [ ]
2. Custody Seals dated and signed? NA [ ] Yes [ ] No [ ]
3. Chain of Custody record present? NA [ ] Yes [ ] No [ ]
4. Cooler temperature: _____ NA [ ] 5: Vermiculite/packing materials is NA [ ] Wet [ ] Dry [ ] Yes [ ] No [ ]
6. Number of samples in shipping container: 4
7. Sample holding times exceeded? NA [ ] Yes [ ] No [ ]
8. Samples have:
   _____ tape
   _____ custody seals
   _____ hazard labels
   ___✓___ appropriate samples labels
9. Samples are:
   ___✓___ in good condition
   _____ broken
   _____ leaking
   _____ have air bubbles
   (Only for samples requiring head space)
10. Sample pH taken? NA [ ] pH<2 [✓] pH>2 [✓] adjusted pH [ ]
11. Sample Location, Sample Collector Listed? *
    *For documentation only. No corrective action needed. Yes [✓] No [ ]
12. Were any anomalies identified in sample receipt? Yes [ ] No [✓]
13. Description of anomalies (include sample numbers): N/A

Sample Custodian: L. Welch Date: 8-1-06 15:00

Client Sample ID	Analysis Requested	Condition	Comments/Action

Client Informed on _____ by _____ Person contacted _____

[ ] No action necessary; process as is.

Project Manager _____ Date _____

LS-023, 12/05, Rev. 6

PNNL ~~J6H010306~~ W049711 Due 9-~~18~~-06

J6H010306 (SW) 15 SW

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # **I06-054-8**

Page 1 of 1

Collector DURATEK E.M. HALL	**Contact/Requester** Dot Stewart	**Telephone No.** 509-376-5056 **MSIN** **FAX**
SAF No. I06-054	**Sampling Origin** Hanford Site	**Purchase Order/Charge Code**
Project Title 2UP1-LOI, AUGUST 2006	DTS- SAMS H109	**Ice Chest No.** SAMS 370 **Temp.**
Shipped To (Lab) Severn Trent Incorporated, Richland	**Method of Shipment** Govt. Vehicle	**Bill of Lading/Air Bill No.**
Protocol SURV	**Priority:** 45 Days	**Offsite Property No.**

POSSIBLE SAMPLE HAZARDS/REMARKS
** **

SPECIAL INSTRUCTIONS **Hold Time** Total Activity Exemption: Yes ☑ No ☐
Batch all PNNL GW samples submitted under "W", "S", "I", "A" or "G" 06 SAFs into one SDG, not to exceed SDG closure of 14 days.
Submit invoices & deliverables to DL Stewart, PNNL

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1K542		W	8-1-06	1307	1x20-mL P	Activity Scan	None
B1K542		W	"	"	1x500-mL G/P	UTOT_KPA: Uranium (1) JAE65	HNO3 to pH <2
B1K542		W	"	"	2x4000-mL G/P	I129LL_SEP_LEPS_GS_LL: I-129 (1)	None

15:00 15:00

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
DURATEK E.M. HALL			AUG 0 1 2006		S. Welch	S. Welch	AUG 0 1 2006
Relinquished By			Date/Time	Received By			Date/Time
Relinquished By			Date/Time	Received By			Date/Time
Relinquished By			Date/Time	Received By			Date/Time

Matrix *

S = Soil		DS = Drum Solid	
SE = Sediment		DL = Drum Liqui	
SO = Solid		T = Tissue	
SL = Sludge		WI = Wine	
W = Water		L = Liquid	
O = Oil		V = Vegetation	
A = Air		X = Other	

FINAL SAMPLE DISPOSITION	Disposal Method (e.g., Return to customer, per lab procedure, used in process)	Disposed By	Date/Time

PNNL ~~J6H010305~~ W04971 Due 9·15·06

J6H010306 (SEE)

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # **I06-054-9**

Collector: DURATEK F. M. HALL	Contact/Requester: Dot Stewart	Telephone No.: 509-376-5056 MSIN FAX
SAF No.: I06-054	Sampling Origin: Hanford Site	Purchase Order/Charge Code
Project Title: 2UP1-LOI, AUGUST 2006	DTS SAW1 H 109	Ice Chest No. SAWS 370 Temp.
Shipped To (Lab): Severn Trent Incorporated, Richland	Method of Shipment: Govt. Vehicle	Bill of Lading/Air Bill No.
Protocol: SURV	Priority: 45 Days	Offsite Property No.

POSSIBLE SAMPLE HAZARDS/REMARKS

** **

SPECIAL INSTRUCTIONS **Hold Time** Total Activity Exemption: Yes ☑ No ☐

Batch all PNNL GW samples submitted under "W", "S", "I", "A" or "G" 06 SAFs into one SDG, not to exceed SDG closure of 14 days.

Submit invoices & deliverables to DL Stewart, PNNL

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1K543		W	8-1-06	1302	1x20-mL P	Activity Scan	None
B1K543		W	↓	↓	1x500-mL G/P	UTOT_KPA: Uranium (1) JAE66	HNO3 to pH <2
B1K543		W	↓	↓	2x4000-mL G/P	I129LL_SEP_LEPS_GS_LL: I-129 (1)	None

Relinquished By	Date/Time	Received By	Date/Time
Print: DURATEK F. M. HALL Sign: [signature]	AUG 0 1 2006 15:00	Print: S. Welch Sign: S. Welch	AUG 0 1 2006 15:00
Relinquished By	Date/Time	Received By	Date/Time
Relinquished By	Date/Time	Received By	Date/Time
Relinquished By	Date/Time	Received By	Date/Time

Matrix *

S = Soil		DS = Drum Solid	
SE = Sediment		DL = Drum Liqui	
SO = Solid		T = Tissue	
SL = Sludge		WI = Wipe	
W = Water		L = Liquid	
O = Oil		V = Vegetation	
A = Air		X = Other	

FINAL SAMPLE DISPOSITION	Disposal Method (e.g., Return to customer, per lab procedure, used in process)	Disposed By	Date/Time

SEVERN TRENT STL

Sample Check-in List

Date/Time Received: 8-1-06 15:00

Client: PGW SDG #: W04971 NA [ ] SAF #: I06-054 NA [ ]

Work Order Number: JLH010306 Chain of Custody # I06-054-8, 9

Shipping Container ID: SAWS 370 Air Bill # N/A

1. Custody Seals on shipping container intact? NA [ ] Yes [ ] No [ ]
2. Custody Seals dated and signed? NA [ ] Yes [ ] No [ ]
3. Chain of Custody record present? NA [ ] Yes [ ] No [ ]
4. Cooler temperature: _____ NA [ ] 5. Vermiculite/packing materials is NA [ ] Wet [ ] Dry [ ]
6. Number of samples in shipping container: 2
7. Sample holding times exceeded? NA [ ] Yes [ ] No [ ]
8. Samples have:
   _____ tape
   _____ custody seals
   _____ hazard labels
   ✓ appropriate samples labels
9. Samples are:
   ✓ in good condition
   _____ broken
   _____ leaking
   _____ have air bubbles
   (Only for samples requiring head space)
10. Sample pH taken? NA [ ] pH<2 [ ] pH>2 [ ] adjusted pH [ ]
11. Sample Location, Sample Collector Listed? * Yes [ ] No [ ]
    *For documentation only. No corrective action needed.
12. Were any anomalies identified in sample receipt? Yes [ ] No [ ]
13. Description of anomalies (include sample numbers): N/A

Sample Custodian: L. Welch Date: 8-1-06 15:00

Client Sample ID	Analysis Requested	Condition	Comments/Action

Client Informed on _____ by _____ Person contacted _____

[ ] No action necessary; process as is.

Project Manager _____ Date _____

PNNL J6H010307 W04971 DURATEK Due 9.15.06

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # **W06-008-334**

Page 1 of 1

Collector F. M. HALL	**Contact/Requester** Dot Stewart	**Telephone No.** 509-376-5056 **MSIN** **FAX**
SAF No. W06-008	**Sampling Origin** Hanford Site	**Purchase Order/Charge Code**
Project Title RCRA, AUGUST 2006	DTS- SAMS H109	**Ice Chest No.** SAMS 370 **Temp.**
Shipped To (Lab) Severn Trent Incornorated, Richland	**Method of Shipment** Govt. Vehicle	**Bill of Lading/Air Bill No.**
Protocol RCRA	**Priority:** 45 Days	**Offsite Property No.**

POSSIBLE SAMPLE HAZARDS/REMARKS
** **

SPECIAL INSTRUCTIONS **Hold Time** Total Activity Exemption: Yes ☑ No ☐
Batch all PNNL GW samples submitted under "W", "S", "I", "A" or "G" 06 SAFs into one SDG, not to exceed SDG closure of 14 days.
Submit invoices & deliverables to DL Stewart, PNNL

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1K2X7		W	8-1-06	1037	1x20-mL P	Activity Scan	None
B1K2X7		W	"	"	1x1000-mL P	906.0_H3_LSC: Tritium (1) JAE67	None
B1K2X7		W	"	"	1x500-mL P	TC99_ETVDSK_LSC: Tc-99 (1)	HCl to pH <2

Relinquished By	Print / Sign	Date/Time	Received By	Print / Sign	Date/Time	Matrix *	
DURATEK F. M. HALL	F. M. HALL	AUG 01 2006 15:00	L. Welch	L. Welch	AUG 01 2006 15:00	S = Soil	DS = Drum Solid
Relinquished By		Date/Time	Received By		Date/Time	SE = Sediment	DL = Drum Liqui
						SO = Solid	T = Tissue
Relinquished By		Date/Time	Received By		Date/Time	SL = Sludge	WI = Wine
						W = Water	L = Liquid
Relinquished By		Date/Time	Received By		Date/Time	O = Oil	V = Vegetation
						A = Air	X = Other

FINAL SAMPLE DISPOSITION	Disposal Method (e.g., Return to customer, per lab procedure, used in process)	Disposed By	Date/Time

PNNL J6H010307
W04971
Due 9-15-06

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # **W06-008-356**

Page 1 of 1

Collector DURATEK F. M. HALL	**Contact/Requester** Dot Stewart	**Telephone No.** 509-376-5056 **MSIN** **FAX**
SAF No. W06-008	**Sampling Origin** Hanford Site	**Purchase Order/Charge Code**
Project Title RCRA, AUGUST 2006	DTS - SAW 8 H 109	**Ice Chest No.** Sine 370 **Temp.**
Shipped To (Lab) Severn Trent Incorporated, Richland	**Method of Shipment** Govt. Vehicle	**Bill of Lading/Air Bill No.**
Protocol RCRA	Priority: 45 Days	**Offsite Property No.**

POSSIBLE SAMPLE HAZARDS/REMARKS
** **

SPECIAL INSTRUCTIONS **Hold Time** Total Activity Exemption: Yes ☑ No ☐
Batch all PNNL GW samples submitted under "W", "S", "I", "A" or "G" 06 SAFs into one SDG, not to exceed SDG closure of 14 days.
Submit invoices & deliverables to DL Stewart, PNNL

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1K307		W	8-1-06	1307	1x20-mL P	Activity Scan	None
B1K307		W	↓	↓	1x500-mL P	TC99_ETVDSK_LSC: Tc-99 (1)	HCl to pH <2
						JAE68	

Relinquished By DURATEK F. M. HALL	Print / Sign [signature]	Date/Time AUG 01 2006 15:00	Received By S. Welch	Print S. Welch / Sign [signature]	Date/Time AUG 01 2006 15:00
Relinquished By		Date/Time	Received By		Date/Time
Relinquished By		Date/Time	Received By		Date/Time
Relinquished By		Date/Time	Received By		Date/Time

Matrix *

S = Soil	DS = Drum Solid		
SE = Sediment	DL = Drum Liqui		
SO = Solid	T = Tissue		
SL = Sludge	WI = Wipe		
W = Water	L = Liquid		
O = Oil	V = Vegetation		
A = Air	X = Other		

FINAL SAMPLE DISPOSITION	Disposal Method (e.g., Return to customer, per lab procedure, used in process)	Disposed By	Date/Time

SEVERN TRENT STL

Sample Check-in List

Date/Time Received: 8.1.06 15:00

Client: PGW SDG #: W04971 NA [ ] SAF #: W06-008 NA [ ]

Work Order Number: J614070307 Chain of Custody # W06-008-334,356

Shipping Container ID: SAWS370 Air Bill # N/A

1. Custody Seals on shipping container intact? NA [ ] Yes [X] No [ ]
2. Custody Seals dated and signed? NA [ ] Yes [X] No [ ]
3. Chain of Custody record present? Yes [X] No [ ]
4. Cooler temperature: _____ NA [X] 5. Vermiculite/packing materials is NA [X] Wet [ ] Dry [ ]
6. Number of samples in shipping container: 2
7. Sample holding times exceeded? NA [X] Yes [ ] No [ ]
8. Samples have:
   _____tape
   _____custody seals
   _____hazard labels
   ____appropriate samples labels
9. Samples are:
   ____in good condition
   _____broken
   _____leaking
   _____have air bubbles
   (Only for samples requiring head space)
10. Sample pH taken? NA [ ] pH<2 [X] pH>2 [X] adjusted pH [ ]
11. Sample Location, Sample Collector Listed? *
    *For documentation only. No corrective action needed. Yes [X] No [ ]
12. Were any anomalies identified in sample receipt? Yes [ ] No [X]
13. Description of anomalies (include sample numbers): N/A

Sample Custodian: L. Welch Date: 8.1.06 15:00

Client Sample ID	Analysis Requested	Condition	Comments/Action

Client Informed on _____ by _____ Person contacted _____

[ ] No action necessary; process as is.

Project Manager _____ Date _____

8/23/2006 11:25:31 AM

Sample Preparation/Analysis

Balance Id:206113

384868, Pacific Northwest National Laboratory ,
Pacific Northwest National Lab

BN I-129 Prp/SepRC5025
TB Gamma by LEPD
5I CLIENT: HANFORD

Pipet #: _____

AnalyDueDate: 09/15/2006 WO 4971

Sep1 DT/Tm Tech:

Batch: 6215550 **WATER** **pCi/L**

PM, Quote: HC , 57671

Sep2 DT/Tm Tech:

SEQ Batch, Test: None

Prep Tech: DillonM

Work Order, Lot, Sample DateTime	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
1 JAE6D-1-AC J6H010301-3-SAMP 08/01/2006 12:16		3927.40g,in AmtRec: 20ML,500ML,LP,2X4LP	ITA5633 08/18/06 #Containers: 5		37.4	100	L5	1110 Scr:	9/9/06 K Alpha: 2.35E-04 uCi/Sa	Beta: 1.28E-03 uCi/Sa
2 JAE6D-1-AE-X J6H010301-3-DUP 08/01/2006 12:16		3914.60g,in AmtRec: 20ML,500ML,LP,2X4LP	ITA5634 08/18/06 #Containers: 5		38.6	100	L2	1256 Scr:	9/9/06 K Alpha: 2.35E-04 uCi/Sa	Beta: 1.28E-03 uCi/Sa
3 JAE6K-1-AC J6H010301-4-SAMP 08/01/2006 11:16		4002.50g,in AmtRec: 20ML,500ML,LP,2X4LP	ITA5635 08/18/06 #Containers: 5		36.3	100	L4	1257 Scr:	9/9/06 K Alpha: -9.85E-05 uCi/Sa	Beta: 1.85E-03 uCi/Sa
4 JAE6R-1-AC J6H010301-5-SAMP 08/01/2006 10:19		4001.30g,in AmtRec: 20ML,500ML,LP,2X4LP	ITA5636 08/18/06 #Containers: 5		35.1	100	L5	1258 Scr:	9/9/06 K Alpha: 8.19E-04 uCi/Sa	Beta: 8.30E-04 uCi/Sa
5 JAE6T-1-AC J6H010301-6-SAMP 08/01/2006 09:15		4002.10g,in AmtRec: 20ML,500ML,LP,2X4LP	ITA5637 08/18/06 #Containers: 5		37.1	100	L2	1442 Scr:	9/9/06 K Alpha: 6.71E-04 uCi/Sa	Beta: 1.51E-04 uCi/Sa
6 JAE61-1-AC J6H010305-1-SAMP 08/01/2006 09:57		4002.40g,in AmtRec: 20ML,500MLP,LP,2X4LP	ITA5638 08/18/06 #Containers: 5		36.0	100	L4	1443 Scr:	9/9/06 K Alpha: 4.44E-04 uCi/Sa	Beta: 1.73E-03 uCi/Sa
7 JAE65-1-AA J6H010306-1-SAMP 08/01/2006 13:07		4002.30g,in AmtRec: 20ML,500ML,2X4LP	ITA5639 08/18/06 #Containers: 4		36.6	100	L5	1444 Scr:	9/9/06 K Alpha: 4.54E-04 uCi/Sa	Beta: 2.77E-03 uCi/Sa

8/23/2006 11:25:33 AM

Sample Preparation/Analysis

Balance Id:206113

384868, Pacific Northwest National Laboratory , Pacific Northwest National Lab

BN I-129 Prp/SepRC5025
TB Gamma by LEPD
5I CLIENT: HANFORD

Pipet #: _____

AnalyDueDate: 09/15/2006

Sep1 DT/Tm Tech:

Batch: 6215550 WATER pCi/L PM, Quote: HC , 57671

SEQ Batch, Test: None

Sep2 DT/Tm Tech:

Prep Tech: ,DillonM

Work Order, Lot, Sample DateTime	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
8 JAE66-1-AA J6H010306-2-SAMP 08/01/2006 13:07		4005.80g,in AmtRec: 20ML,500ML,2X4LP	ITA5640 08/18/06 #Containers: 4		35.7	100	L2 Scr:	1631 Alpha: 6.67E-04 uCi/Sa	9/9/06 R Beta: 4.39E-04 uCi/Sa	
9 JAGEM-1-AC J6H010305-2-SAMP 08/01/2006 11:07		4008.10g,in AmtRec: 20ML,500MLP,LP,2X4LP	ITA5641 08/18/06 #Containers: 5		38.3	100	L4 Scr:	1633 Alpha: 2.17E-03 uCi/Sa	9/9/06 R Beta: -3.03E-04 uCi/Sa	
10 JAK3P-1-AA-B J6H030000-550-BLK 08/01/2006 12:16		4000.20g,in AmtRec:	ITA5642 08/18/06 #Containers: 1		36.4	100	L5 Scr:	1634 Alpha:	9/9/06 R Beta:	
11 JAK3P-1-AC-C J6H030000-550-LCS 08/01/2006 12:16		4000.40g,in AmtRec:	ISD0681 08/02/06 #Containers: 1		38.4	100	C4 Scr:	0804 Alpha:	9/11/06 Beta:	

Comments: JAE6D-SAMP "Comments: Aliquots reduced due to insufficient provided sample volume. MD 8/23/06"

All Clients for Batch:
384868, Pacific Northwest National Laboratory Pacific Northwest National Lab, HC , 57671

JAE6D1AC-SAMP Constituent List:

I-129	RDL:1.00E+00	pCi/L	LCL:	UCL:	RPD:

JAK3P1AA-BLK:

I-129	RDL:1.00E+00	pCi/L	LCL:	UCL:	RPD:

JAK3P1AC-LCS:

I-129	RDL:5	pCi/L	LCL:70	UCL:130	RPD:20

JAE6D1AC-SAMP Calc Info:

Sample Preparation/Analysis

BN I-129 Prp/SepRC5025
TB Gamma by LEPD
5I CLIENT: HANFORD

Balance Id:206113

Pipet #: _____

AnalyDueDate: 09/15/2006

Sep1 DT/Tm Tech:

Batch: 6215550 **pCi/L**
SEQ Batch, Test: None

Sep2 DT/Tm Tech:

Prep Tech: ,DillonM

Work Order, Lot, Sample DateTime	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:

```
    Uncert Level (#s).: 2     Decay to SaDt: Y     Blk Subt.: N     Sci.Not.: Y     ODRs: B
JAK3P1AA-BLK:
    Uncert Level (#s).: 2     Decay to SaDt: Y     Blk Subt.: N     Sci.Not.: Y     ODRs: B
JAK3P1AC-LCS:
    Uncert Level (#s).: 2     Decay to SaDt: Y     Blk Subt.: N     Sci.Not.: Y     ODRs: B
```

Approved By _____ Date: _____

9/11/2006 4:36:50 PM

ICOC Fraction Transfer/Status Report

ByDate: 9/11/2005, 9/16/2006, Batch: '6215550', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting			Comments
6215550						
AC		**CalcC**	**DillonM**	8/23/2006 9:43:23		
SC			wagarr	IsBatched	8/3/2006 1:40:44 PM	ICOC_RADCALC v4.8.24
SC			DillonM	InPrep	8/23/2006 9:43:23 AM	RICH-RC-5016 REVISION 6
SC			DillonM	Prep1C	8/23/2006 2:57:58 PM	RICH-RC-5016 REVISION 6
SC			HoganS	Prep1C	9/8/2006 1:32:24 PM	RICHRC5025 REV3
SC			DAWKINSO	InCnt1	9/8/2006 3:09:40 PM	RICH-RD-0007 REVISION 5
SC			BlackCL	CalcC	9/11/2006 9:47:26 AM	RICH-RD-0007 REVISION 5
AC			**DillonM**	8/23/2006 2:57:58 PM		
AC			**HoganS**	9/8/2006 1:32:24 PM		
AC			**DAWKINSO**	9/8/2006 3:09:40 PM		
AC			**BlackCL**	9/11/2006 9:47:26		

AC: Accepting Entry; SC: Status Change

8/17/2006 2:25:04 PM

Sample Preparation/Analysis

Balance Id:1120482733,206113,11204031

384868, Pacific Northwest National Laboratory , Pacific Northwest National Lab

AW Gamma PrpRC5017
TA Gamma by HPGE
5I CLIENT: HANFORD

Pipet #: _____

AnalyDueDate: 09/15/2006 WD4971

Sep1 DT/Tm Tech:

Batch: 6215556 **WATER** **pCi/L**

PM, Quote: HC , 57671

Sep2 DT/Tm Tech:

SEQ Batch, Test: None

Prep Tech: DillonM

Work Order, Lot, Sample DateTime	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
1 JAE6W-1-AE J6H010303-1-SAMP 07/26/2006 09:47	2502.20g,in				100	100	67	1248	8/23/06	
	AmtRec: 20ML,8XLP	#Containers: 9					Scr: Alpha: 9.87E-03 uCi/Sa 1.5E-01L		Beta: 1.44E-02 uCi/Sa 5.0E-02L	
2 JAE6W-1-AH-X J6H010303-1-DUP 07/26/2006 09:47	2499.80g,in					100	610	1045		
	AmtRec: 20ML,8XLP	#Containers: 9					Scr: Alpha: 9.87E-03 uCi/Sa 1.5E-01L		Beta: 1.44E-02 uCi/Sa 5.0E-02L	
3 JAE6X-1-AE J6H010303-2-SAMP 07/26/2006 10:22	2499.80g,in					100	611	1045		
	AmtRec: 20ML,8XLP	#Containers: 9					Scr: Alpha: 1.85E-03 uCi/Sa		Beta: 2.60E-03 uCi/Sa	
4 JAK4A-1-AA-B J6H030000-556-BLK 07/26/2006 09:47	2500.00g,in					100	613	1046		
	AmtRec:	#Containers: 1					Scr:	Alpha:		Beta:
5 JAK4A-1-AC-C J6H030000-556-LCS 07/26/2006 09:47	2501.70g,in	QCAG1272 07/20/06,pd 03/07/05,r				100	614	1119	8/26/06	
	AmtRec:	#Containers: 1					Scr:	Alpha:		Beta:

Comments: pH<2.0 mg 8/17/06

All Clients for Batch:
384868, Pacific Northwest National Laboratory Pacific Northwest National Lab, HC , 57671

JAE6W1AE-SAMP Constituent List:

Co-60	RDL:2.50E+01	pCi/L	LCL:	UCL:	RPD:	Cs-134	RDL:1.50E+01	pCi/L	LCL:	UCL:	RPD:

Sample Preparation/Analysis

Balance Id:1120482733,206113,11204031

AW Gamma PrpRC5017
TA Gamma by HPGE
5I CLIENT: HANFORD

Pipet #: _____

AnalyDueDate: 09/15/2006

Sep1 DT/Tm Tech:

Batch: 6215556 **pCi/L**

SEQ Batch, Test: None

Sep2 DT/Tm Tech:

Prep Tech: ,DillonM

Work Order, Lot, Sample DateTime	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:

Cs-137	RDL:1.50E+01	pCi/L	LCL:70	UCL:130	RPD:20	Cs-137DA	RDL:1.50E+01	pCi/L	LCL:70	UCL:130	RPD:20
Eu-152	RDL:5.00E+01	pCi/L	LCL:	UCL:	RPD:	Eu-154	RDL:5.00E+01	pCi/L	LCL:	UCL:	RPD:
Eu-155	RDL:5.00E+01	pCi/L	LCL:	UCL:	RPD:	K-40	RDL:0.00E+00	pCi/L	LCL:	UCL:	RPD:
Sb-125	RDL:5.00E+01	pCi/L	LCL:	UCL:	RPD:						
JAK4A1AA-BLK:											
Co-60	RDL:2.50E+01	pCi/L	LCL:	UCL:	RPD:	Cs-134	RDL:1.50E+01	pCi/L	LCL:	UCL:	RPD:
Cs-137	RDL:1.50E+01	pCi/L	LCL:	UCL:	RPD:	Cs-137DA	RDL:1.50E+01	pCi/L	LCL:	UCL:	RPD:
Eu-152	RDL:5.00E+01	pCi/L	LCL:	UCL:	RPD:	Eu-154	RDL:5.00E+01	pCi/L	LCL:	UCL:	RPD:
Eu-155	RDL:5.00E+01	pCi/L	LCL:	UCL:	RPD:	K-40	RDL:0.00E+00	pCi/L	LCL:	UCL:	RPD:
Sb-125	RDL:5.00E+01	pCi/L	LCL:	UCL:	RPD:						
JAK4A1AC-LCS:											
Cs-137	RDL:15	pCi/L	LCL:70	UCL:130	RPD:20	Cs-137DA	RDL:15	pCi/L	LCL:70	UCL:130	RPD:20
K-40	RDL:6	pCi/L	LCL:70	UCL:130	RPD:20	Ra-226	RDL:--	pCi/L	LCL:70	UCL:130	RPD:20
RA-228	RDL:--	pCi/L	LCL:70	UCL:130	RPD:20	RA-228DA	RDL:--	pCi/L	LCL:70	UCL:130	RPD:20
U-238	RDL:--	pCi/L	LCL:70	UCL:130	RPD:20						

JAE6W1AE-SAMP Calc Info:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

JAK4A1AA-BLK:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

JAK4A1AC-LCS:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

Approved By _____ Date: _____

8/30/2006 11:24:09 AM

ICOC Fraction Transfer/Status Report

ByDate: 8/30/2005, 9/4/2006, Batch: '6215556', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting			Comments
6215556						
AC		**CalcC**	**DillonM**	8/17/2006 2:42:36 PM		
SC			wagarr	IsBatched	8/3/2006 1:40:44 PM	ICOC_RADCALC v4.8.24
SC			DillonM	Prep1C	8/17/2006 2:42:36 PM	RICH-RC-5017 REVISION 5
SC			ScottM	InPrep2	8/21/2006 6:27:04 AM	RICH-RC-5017 REVISION 4
SC			ScottM	Prep2C	8/23/2006 8:31:43 AM	RICH-RC-5017 REVISION 4
SC			BlackCL	InCnt1	8/23/2006 8:41:01 AM	RICH-RD-0007 REVISION 5
SC			StringerR	CalcC	8/26/2006 11:49:49 AM	RICH-RD-0007 REVISION 5
AC			**ScottM**	8/21/2006 6:27:04		
AC			**ScottM**	8/23/2006 8:31:43		
AC			**BlackCL**	8/23/2006 8:41:01		
AC			**StringerR**	8/26/2006 11:49:49		

8/23/2006 8:47:22 AM

Sample Preparation/Analysis

Balance Id:206113

384868, Pacific Northwest National Laboratory , Pacific Northwest National Lab

AZ Gross Alpha PrpRC5014
S7 Gross Alpha by GPC using Am-241 curve
5I CLIENT: HANFORD

Pipet #: 229

AnalyDueDate: 09/15/2006 WO 49711

Sep1 DT/Tm Tech:

Batch: 6215552 **WATER** **pCi/L**

PM, Quote: HC , 57671

Sep2 DT/Tm Tech:

SEQ Batch, Test: None

Prep Tech: DillonM ISCOTT

Work Order, Lot, Sample DateTime	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
1 JAE53-1-AC J6H010299-1-SAMP 07/26/2006 08:38		185.20g,in AmtRec: 20ML,2XLP		1.5 #Containers: 3	50.0	30	10A	1815 Scr:	8/28/06 DD Alpha: -1.29E-04 uCi/Sa	Beta: 1.03E-04 uCi/Sa
2 JAE6W-1-AC 100ml/5 J6H010303-1-SAMP 07/26/2006 09:47		99.40g,in AmtRec: 20ML,8XLP		 #Containers: 9	52.5		10B	 Scr:	 Alpha: 9.87E-03 uCi/Sa 1.5E-01L	Beta: 1.44E-02 uCi/Sa 5.0E-02L
3 JAE6X-1-AC J6H010303-2-SAMP 07/26/2006 10:22		128.20g,in AmtRec: 20ML,8XLP		 #Containers: 9	30.3		10C	 Scr:	 Alpha: 1.85E-03 uCi/Sa	Beta: 2.60E-03 uCi/Sa
4 JAE6X-1-AG-X J6H010303-2-DUP 07/26/2006 10:22		128.10g,in AmtRec: 20ML,8XLP		 #Containers: 9	27.8		10D	 Scr:	 Alpha: 1.85E-03 uCi/Sa	Beta: 2.60E-03 uCi/Sa
5 JAK31-1-AA-B J6H030000-552-BLK 07/26/2006 10:22		200.70g,in AmtRec:		 #Containers: 1	0.2		10E	 Scr:	 Alpha:	Beta:
6 JAK31-1-AC-C J6H030000-552-LCS 07/26/2006 10:22		202.00g,in AmtRec:	ASD3968 08/11/06,pd 02/09/06,r #Containers: 1	 #Containers: 1	0.6		10B	1922 Scr:	D Alpha:	Beta:

STL Richland
Richland Wa.

Key: In - Initial Amt, fi - Final Amt, di - Diluted Amt, s1 - Sep1, s2 - Sep2
pd - Prep Dt, r - Reference Dt, ec-Enrichment Cell, ct-Cocktailed Added

ISV - Insufficient Volume for Analysis

WO Cnt: 6

Prep_SamplePrep v4.8.24

8/23/2006 8:47:24 AM

Sample Preparation/Analysis

AZ Gross Alpha PrpRC5014
S7 Gross Alpha by GPC using Am-241 curve
5I CLIENT: HANFORD

Balance Id:206113

Pipet #: _____

Sep1 DT/Tm Tech:

Sep2 DT/Tm Tech:

Prep Tech: ,DillonM

AnalyDueDate: 09/15/2006

Batch: 6215552 **pCi/L**
SEQ Batch, Test: None

Work Order, Lot, Sample DateTime	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:

Comments: JAE53-SAMP "Comments: Alpha aliquot for JAE53 reduced due to weight screen activity. MD 8/23/06"
JAE6W-SAMP "Comments: Aliquots for JAE6W reduced due to initial screen activity. MD 8/23/06"
JAE6X-SAMP "Comments: Alpha aliquots for JAE6X reduced due to weight screen activity. MD 8/23/06"

pH<2.0 mB 8/23/06

All Clients for Batch:
384868, Pacific Northwest National Laboratory Pacific Northwest National Lab, HC , 57671

JAE531AC-SAMP Constituent List:

ALPHA	RDL:3	pCi/L	LCL:	UCL:	RPD:
JAK311AA-BLK:					
ALPHA	RDL:3	pCi/L	LCL:	UCL:	RPD:
JAK311AC-LCS:					
Am-241	RDL:	pCi/L	LCL:70	UCL:130	RPD:20

JAE531AC-SAMP Calc Info:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
JAK311AA-BLK:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
JAK311AC-LCS:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

Approved By _____ Date: _____

8/29/2006 4:52:13 PM

ICOC Fraction Transfer/Status Report

ByDate: 8/29/2005, 9/3/2006, Batch: '6215552', User: *ALL Order By DateTimeAccepting

Q	Batch	Work Ord	CurStatus	Accepting			Comments
6215552							
AC			**CalcC**	**DillonM**	8/23/2006 8:13:08		
SC				wagarr	IsBatched	8/3/2006 1:40:44 PM	ICOC_RADCALC v4.8.24
SC				DillonM	InPrep	8/23/2006 8:13:08 AM	RICH-RC-5014 REVISION 6
SC				ScottM	InPrep2	8/23/2006 9:14:16 AM	RICH-RC-5014 REVISION 6
SC				DillonM	Prep1C	8/23/2006 2:58:33 PM	RICH-RC-5016 REVISION 6
SC				ScottM	Prep2C	8/24/2006 7:42:31 AM	RICH-RC-5014 REVISION 6
SC				BlackCL	InCnt1	8/24/2006 7:51:32 AM	RICH-RD-0003 REVISION 4
SC				DAWKINSO	CalcC	8/28/2006 10:04:27 PM	RICH-RD-0003 REVISION 4
AC				**ScottM**	8/23/2006 9:14:16		
AC				**DillonM**	8/23/2006 2:58:33 PM		
AC				**ScottM**	8/24/2006 7:42:31		
AC				**BlackCL**	8/24/2006 7:51:32		
AC				**DAWKINSO**	8/28/2006 10:04:27		

AC: Accepting Entry; SC: Status Change

STL Richland

Richland Wa.

Grp Rec Cnt: 6

ICOCFractions v4.8.18

8/23/2006 8:47:24 AM

Sample Preparation/Analysis

Balance Id:206113

384868, Pacific Northwest National Laboratory , Pacific Northwest National Lab

BC Gross Beta PrpRC5014
S8 Gross Beta by GPC using Sr/Y-90 curve
5I CLIENT: HANFORD

Pipet #: 229

AnalyDueDate: 09/15/2006 WO 4971

Sep1 DT/Tm Tech:

Batch: 6215554 **WATER** **pCi/L**

PM, Quote: HC , 57671

Sep2 DT/Tm Tech:

SEQ Batch, Test: None

Prep Tech: DillonM Scott

Work Order, Lot, Sample DateTime	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
1 JAE53-1-AD J6H010299-1-SAMP 07/26/2006 08:38	199.70g,in AmtRec: 20ML,2XLP	#Containers: 3	1.5	78.0	180	32C	1721		8/24/06 OP	Scr: Alpha: -1.29E-04 uCi/Sa Beta: 1.03E-04 uCi/Sa
2 JAE53-1-AE-X J6H010299-1-DUP 07/26/2006 08:38	199.90g,in AmtRec: 20ML,2XLP	#Containers: 3		74.5		32D				Scr: Alpha: -1.29E-04 uCi/Sa Beta: 1.03E-04 uCi/Sa
3 JAE6W-1-AD 50 ml J6H010303-1-SAMP 07/26/2006 09:47	50.50g,in AmtRec: 20ML,8XLP	#Containers: 9		73.2	200	27D	1117		8/24/06	Scr: Alpha: 9.87E-03 uCi/Sa 1.5E-01L Beta: 1.44E-02 uCi/Sa 5.0E-02L
4 JAE6X-1-AD J6H010303-2-SAMP 07/26/2006 10:22	200.40g,in AmtRec: 20ML,8XLP	#Containers: 9		92.3		27A	1828		8/24/06 OP	Scr: Alpha: 1.85E-03 uCi/Sa Beta: 2.60E-03 uCi/Sa
5 JAK36-1-AA-B J6H030000-554-BLK 07/26/2006 08:38	199.90g,in AmtRec:	#Containers: 1		0.1	200	30A	1117		8/24/06	Scr: Alpha: Beta:
6 JAK36-1-AC-C J6H030000-554-LCS 07/26/2006 08:38	200.70g,in AmtRec:	BESB2901 08/11/06,pd 08/08/06,r #Containers: 1		0.4	200	32B				Scr: Alpha: Beta:

Sample Preparation/Analysis

BC Gross Beta PrpRC5014
S8 Gross Beta by GPC using Sr/Y-90 curve
5I CLIENT: HANFORD

Balance Id:206113

Pipet #: _____

AnalyDueDate: 09/15/2006

Sep1 DT/Tm Tech:

Batch: 6215554 **pCi/L**
SEQ Batch, Test: None

Sep2 DT/Tm Tech:

Prep Tech: ,DillonM

Work Order, Lot, Sample DateTime	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:

Comments: JAE53-SAMP "Comments: Alpha aliquot for JAE53 reduced due to weight screen activity. MD 8/23/06"
JAE6W-SAMP "Comments: Aliquots for JAE6W reduced due to initial screen activity. MD 8/23/06"
JAE6X-SAMP "Comments: Alpha aliquots for JAE6X reduced due to weight screen activity. MD 8/23/06"

pH < 2.0 MD 8/23/06

All Clients for Batch:
384868, Pacific Northwest National Laboratory Pacific Northwest National Lab, HC , 57671

JAE531AD-SAMP Constituent List:
BETA RDL:4 pCi/L LCL: UCL: RPD:
JAK361AA-BLK:
BETA RDL:4 pCi/L LCL: UCL: RPD:
JAK361AC-LCS:
Sr-90 RDL: pCi/L LCL:70 UCL:130 RPD:20

JAE531AD-SAMP Calc Info:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
JAK361AA-BLK:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
JAK361AC-LCS:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

Approved By _____ Date: _____

ICOC Fraction Transfer/Status Report

ByDate: 8/28/2005, 9/2/2006, Batch: '6215554', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting			Comments
6215554						
AC		**CalcC**	**DillonM**	8/23/2006 8:13:16		
SC			wagarr	IsBatched	8/3/2006 1:40:44 PM	ICOC_RADCALC v4.8.24
SC			DillonM	InPrep	8/23/2006 8:13:16 AM	RICH-RC-5014 REVISION 6
SC			ScottM	InPrep2	8/23/2006 9:14:23 AM	RICH-RC-5014 REVISION 6
SC			DillonM	Prep1C	8/23/2006 2:58:27 PM	RICH-RC-5016 REVISION 6
SC			ScottM	Prep2C	8/24/2006 7:41:18 AM	RICH-RC-5014 REVISION 6
SC			BlackCL	InCnt1	8/24/2006 7:50:39 AM	RICH-RD-0003 REVISION 4
SC			DAWKINSO	CalcC	8/24/2006 9:53:47 PM	RICH-RD-0003 REVISION 4
AC			**ScottM**	8/23/2006 9:14:23		
AC			**DillonM**	8/23/2006 2:58:27 PM		
AC			**ScottM**	8/24/2006 7:41:18		
AC			**BlackCL**	8/24/2006 7:50:39		
AC			**DAWKINSO**	8/24/2006 9:53:47 PM		

AC: Accepting Entry; SC: Status Change

8/17/2006 10:52:54 AM

Sample Preparation/Analysis

Balance Id:206113,1120403183,206113

384868, Pacific Northwest National Laboratory ,
Pacific Northwest National Lab

CL Sr-90 Prp/SepRC5006(5071)
TL Sr-85 by NaI and Sr-90 by GPC 7 day ingrowth
5I CLIENT: HANFORD

Pipet #: ____

AnalyDueDate: 09/15/2006 Wo 4971

Sep1 DT/Tm Tech: 8-26-06 3:28 PM

Batch: 6215555 WATER pCi/L
SEQ Batch, Test: None

PM, Quote: HC , 57671

Sep2 DT/Tm Tech: 07Sept 06 0910

Prep Tech: DillonM DRM

Work Order, Lot, Sample DateTime	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Tracer Yield	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
1 JAE6W-1-AF J6H010303-1-SAMP 07/26/2006 09:47	500 ml	501.60g,in	SRTB13936 08/17/06,pd 06/21/06,r YTA16121 Ex:7/23/2007 AmtRec: 20ML,8XLP	~~1.706~~ 1.705 2.0173 0.426	1.5"	19.8	100	9" 5A (35) 5A	2059 0848 1101 1234	8/28/06 9/8/06 9/8/06 9/9/06	
#Containers: 9								Scr: Alpha: 9.87E-03 uCi/Sa 1.5E-01L		Beta: 1.44E-02 uCi/Sa 5.0E-02L	
2 JAE6W-1-AG-X J6H010303-1-DUP 07/26/2006 09:47	500 ml	500.60g,in	SRTB13937 08/17/06,pd 06/21/06,r YTA16122 Ex:7/23/2007 AmtRec: 20ML,8XLP	1.706 2.0186 0.845		20.3	100	3" 5b (35) 5B	2059 0848 1101 1236	8/28/06 9/8/06 9/8/06 9/9/06	
#Containers: 9								Scr: Alpha: 9.87E-03 uCi/Sa 1.5E-01L		Beta: 1.44E-02 uCi/Sa 5.0E-02L	
3 JAE6X-1-AF J6H010303-2-SAMP 07/26/2006 10:22		1000.70g,in	SRTB13938 08/17/06,pd 06/21/06,r YTA16123 Ex:7/23/2007 AmtRec: 20ML,8XLP	1.767 2.0186 0.8754		22.1	100	9" 5c (85) 6A	2139 0848 1024 1326	8/28/06 9/8/06 9/8/06 9/9/06	
#Containers: 9								Scr: Alpha: 1.85E-03 uCi/Sa		Beta: 2.60E-03 uCi/Sa	
4 JAK39-1-AA-B J6H030000-555-BLK 07/26/2006 09:47		999.80g,in	SRTB13939 08/17/06,pd 06/21/06,r YTA16124 Ex:7/23/2007 AmtRec:	1.876 2.0027 2.0006 1.876 0.937		20.8	100	3" 5d 5A	2139 0848 1154	8/28/06 9/8/06 9/9/06	
#Containers: 1								Scr: Alpha:		Beta:	

8/17/2006 10:52:55 AM

Sample Preparation/Analysis

CL Sr-90 Prp/SepRC5006(5071)
TL Sr-85 by NaI and Sr-90 by GPC 7 day ingrowth
5I CLIENT: HANFORD

Balance Id:206113,1120403183,206113

Pipet #: _____

AnalyDueDate: 09/15/2006

Sep1 DT/Tm Tech:

Batch: 6215555 **pCi/L**
SEQ Batch, Test: None

Sep2 DT/Tm Tech:

Prep Tech: ,DillonM

Work Order, Lot, Sample DateTime	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Tracer Yield	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
5 JAK39-1-AC-C J6H030000-555-LCS		1000.00g,in	SRSG1254 08/17/06,pd 06/21/06,r	1.644 1.996 0.824	1.5"	20.4	100		2211	8/28/06 CA CA 0848 9/8/06 r SB 1154 9/9/06 r	

YTA16125
Ex:7/23/2007

07/26/2006 09:47 AmtRec: #Containers: 1 Scr: Alpha: Beta:

Comments: JAE6W-SAMP "Comments: Aliquots reduced to 500 ml due to initial activity screen. MD 8/17/06"

pH < 2.0 md 8/17/06

All Clients for Batch:
384868, Pacific Northwest National Laboratory Pacific Northwest National Lab, HC , 57671

JAE6W1AF-SAMP Constituent List:

Sr-85	RDL:	pCi/L	LCL:20	UCL:105	RPD:20	Sr-90	RDL:2	pCi/L	LCL:70	UCL:130	RPD:20

JAK391AA-BLK:

Sr-85	RDL:	pCi/L	LCL:20	UCL:105	RPD:20	Sr-90	RDL:2	pCi/L	LCL:	UCL:	RPD:

JAK391AC-LCS:

Sr-85	RDL:	pCi/L	LCL:20	UCL:105	RPD:20	Sr-90	RDL:2	pCi/L	LCL:70	UCL:130	RPD:20

JAE6W1AF-SAMP Calc Info:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
JAK391AA-BLK:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
JAK391AC-LCS:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

Approved By _____ Date: _____

9/11/2006 4:03:18 PM

ICOC Fraction Transfer/Status Report

ByDate: 9/11/2005, 9/16/2006, Batch: '6215555', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting			Comments
6215555						
AC		**CalcC**	**DillonM**	8/17/2006 10:39:05		
SC			wagarr	IsBatched	8/3/2006 1:40:44 PM	ICOC_RADCALC v4.8.24
SC			DillonM	InPrep	8/17/2006 10:39:05 AM	RICH-RC-5016 REVISION 6
SC			DillonM	Prep1C	8/17/2006 10:56:48 AM	RICH-RC-5016 REVISION 6
SC			ManisD	Sep1C	8/28/2006 5:17:40 PM	RICH-RC-5006 REVISION 6
SC			DAWKINSO	InCnt1	8/28/2006 5:51:06 PM	RICH-RD-0007 REVISION 5
SC			DAWKINSO	Cnt1C	8/28/2006 9:52:43 PM	RICH-RD-0007 REVISION 5
SC			ManisD	Sep2C	9/7/2006 5:28:00 PM	RICH-RC-5071 REVISION 4
SC			DAWKINSO	InCnt2	9/7/2006 6:01:47 PM	RICH-RD-0003 REVISION 4
SC			StringerR	CalcC	9/9/2006 2:16:51 PM	RICH-RD-0003 REVISION 4
AC			**DillonM**	8/17/2006 10:56:48		
AC			**ManisD**	8/28/2006 5:17:40 PM		
AC			**DAWKINSO**	8/28/2006 5:51:06 PM		
AC			**DAWKINSO**	8/28/2006 9:52:43 PM		
AC			**ManisD**	9/7/2006 5:28:00 PM		
AC			**DAWKINSO**	9/7/2006 6:01:47 PM		
AC			**StringerR**	9/9/2006 2:16:51 PM		

AC: Accepting Entry; SC: Status Change

8/23/2006 1:04:30 PM

Sample Preparation/Analysis

Balance Id:206113

384868, Pacific Northwest National Laboratory , Pacific Northwest National Lab

FP Tc-99 Prp/SepRC5065
S5 Technetium-99 by Liquid Scint
5I CLIENT: HANFORD

Pipet #: _____

AnalyDueDate: 09/15/2006 W04971

Sep1 DT/Tm Tech:

Batch: 6215539 **WATER** **pCi/L**

PM, Quote: HC , 57671

Sep2 DT/Tm Tech:

SEQ Batch, Test: None

Prep Tech: ,DillonM

Work Order, Lot, Sample Date	Total Amt /Unit	Total Acidified/Unit	Initial Aliquot Amt/Unit	Adj Aliq Amt (Un-Acidified)	QC Tracer Prep Date	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
1 JAE5J-1-AC J6H010297-1-SAMP 08/01/2006 11:52			125.50g,in	125.50g		60				
			AmtRec: 20ML,500ML,LP	#Containers: 3			Scr:	Alpha: 3.45E-04 uCi/Sa		Beta: -2.98E-05 uCi/Sa
2 JAE5J-1-AD-X J6H010297-1-DUP 08/01/2006 11:52			126.80g,in	126.80g		60				
			AmtRec: 20ML,500ML,LP	#Containers: 3			Scr:	Alpha: 3.45E-04 uCi/Sa		Beta: -2.98E-05 uCi/Sa
3 JAE59-1-AC J6H010301-1-SAMP 08/01/2006 09:31			125.30g,in	125.30g		60				
			AmtRec: 20ML,500ML,LP	#Containers: 3			Scr:	Alpha: 2.82E-04 uCi/Sa		Beta: 9.53E-05 uCi/Sa
4 JAE6C-1-AC J6H010301-2-SAMP 08/01/2006 10:56			125.00g,in	125.00g		60				
			AmtRec: 20ML,500ML,LP	#Containers: 3			Scr:	Alpha: 1.01E-04 uCi/Sa		Beta: 1.66E-04 uCi/Sa
5 JAE6D-1-AD J6H010301-3-SAMP 08/01/2006 12:16			126.40g,in	126.40g		60				
			AmtRec: 20ML,500ML,LP,2X4LP	#Containers: 5			Scr:	Alpha: 2.35E-04 uCi/Sa		Beta: 1.28E-03 uCi/Sa
6 JAE6K-1-AD J6H010301-4-SAMP 08/01/2006 11:16			124.80g,in	124.80g		60				
			AmtRec: 20ML,500ML,LP,2X4LP	#Containers: 5			Scr:	Alpha: -9.85E-05 uCi/Sa		Beta: 1.85E-03 uCi/Sa
7 JAE6R-1-AD J6H010301-5-SAMP 08/01/2006 10:19			124.70g,in	124.70g		60				
			AmtRec: 20ML,500ML,LP,2X4LP	#Containers: 5			Scr:	Alpha: 8.19E-04 uCi/Sa		Beta: 8.30E-04 uCi/Sa

8/23/2006 1:04:32 PM

Sample Preparation/Analysis

Balance Id:206113

384868, Pacific Northwest National Laboratory , Pacific Northwest National Lab

FP Tc-99 Prp/SepRC5065
S5 Technetium-99 by Liquid Scint
5I CLIENT: HANFORD

Pipet #: _____

AnalyDueDate: 09/15/2006

Sep1 DT/Tm Tech:

Batch: 6215539 WATER pCi/L

PM, Quote: HC , 57671

Sep2 DT/Tm Tech:

SEQ Batch, Test: None

Prep Tech: ,DillonM

Work Order, Lot, Sample Date	Total Amt /Unit	Total Acidified/Unit	Initial Aliquot Amt/Unit	Adj Aliq Amt (Un-Acidified)	QC Tracer Prep Date	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
8 JAE6T-1-AD J6H010301-6-SAMP 08/01/2006 09:15			125.40g,in AmtRec: 20ML,500ML,LP,2X4LP #Containers: 5	125.40g		60	Scr:	Alpha: 6.71E-04 uCi/Sa		Beta: 1.51E-04 uCi/Sa
9 JAE61-1-AD J6H010305-1-SAMP 08/01/2006 09:57			126.60g,in AmtRec: 20ML,500MLP,LP,2X4LP #Containers: 5	126.60g		60	Scr:	Alpha: 4.44E-04 uCi/Sa		Beta: 1.73E-03 uCi/Sa
10 JAE67-1-AC J6H010307-1-SAMP 08/01/2006 10:37			125.60g,in AmtRec: 20ML,500ML,LP #Containers: 3	125.60g		60	Scr:	Alpha: 1.76E-04 uCi/Sa		Beta: 1.84E-04 uCi/Sa
11 JAE67-1-AD-S J6H010307-1-MS 08/01/2006 10:37			124.70g,in AmtRec: 20ML,500ML,LP #Containers: 3	124.70g	TCSG1672 08/03/06,pd 01/10/06,r	60	Scr:	Alpha: 1.76E-04 uCi/Sa		Beta: 1.84E-04 uCi/Sa
12 JAE68-1-AA J6H010307-2-SAMP 08/01/2006 13:07			127.30g,in AmtRec: 20ML,500ML #Containers: 2	127.30g		60	Scr:	Alpha: 6.72E-05 uCi/Sa		Beta: -9.89E-06 uCi/Sa
13 JAGEM-1-AD J6H010305-2-SAMP 08/01/2006 11:07			125.80g,in AmtRec: 20ML,500MLP,LP,2X4LP #Containers: 5	125.80g		60	Scr:	Alpha: 2.17E-03 uCi/Sa		Beta: -3.03E-04 uCi/Sa
14 JAK2Q-1-AA-B J6H030000-539-BLK 08/01/2006 11:52			127.10g,in AmtRec: #Containers: 1	127.10g		60	Scr:	Alpha:		Beta:

Sample Preparation/Analysis

FP Tc-99 Prp/SepRC5065
S5 Technetium-99 by Liquid Scint
5I CLIENT: HANFORD

Balance Id:206113

Pipet #: _____

AnalyDueDate: 09/15/2006

Sep1 DT/Tm Tech:

Batch: 6215539 **pCi/L**
SEQ Batch, Test: None

Sep2 DT/Tm Tech:

Prep Tech: ,DillonM

Work Order, Lot, Sample Date	Total Amt /Unit	Total Acidified/Unit	Initial Aliquot Amt/Unit	Adj Aliq Amt (Un-Acidified)	QC Tracer Prep Date	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
15 JAK2Q-1-AC-C J6H030000-539-LCS			125.00g,in	125.00g	TCSE1995 08/03/06,pd 01/10/06,r	60				
08/01/2006 11:52		AmtRec:		#Containers: 1			Scr:	Alpha:		Beta:
16 JAK2Q-1-AD-BN J6H030000-539-IBLK										
08/01/2006 11:52		AmtRec:		#Containers: 1			Scr:	Alpha:		Beta:
17 JAK2Q-1-AE-BN J6H030000-539-IBLK										
08/01/2006 11:52		AmtRec:		#Containers: 1			Scr:	Alpha:		Beta:

Comments: JAE6D-SAMP ""

pH<2,0 mp 8/23/06

All Clients for Batch:
384868, Pacific Northwest National Laboratory Pacific Northwest National Lab, HC , 57671

JAE5J1AC-SAMP Constituent List:

Tc-99	RDL:15	pCi/L	LCL:70	UCL:130	RPD:20

JAE671AD-MS:

JAK2Q1AA-BLK:

Tc-99	RDL:15	pCi/L	LCL:	UCL:	RPD:

JAK2Q1AC-LCS:

Tc-99	RDL:15	pCi/L	LCL:70	UCL:130	RPD:20

JAK2Q1AD-IBLK:

Tc-99	RDL:15	pCi/L	LCL:	UCL:	RPD:

JAK2Q1AE-IBLK:

Tc-99	RDL:15	pCi/L	LCL:	UCL:	RPD:

JAE5J1AC-SAMP Calc Info:

Sample Preparation/Analysis

FP Tc-99 Prp/SepRC5065
S5 Technetium-99 by Liquid Scint
5I CLIENT: HANFORD

Balance Id:

Pipet #: _____

AnalyDueDate: 09/15/2006

Sep1 DT/Tm Tech:

Batch: 6215539 **pCi/L**
SEQ Batch, Test: None

Sep2 DT/Tm Tech:

Prep Tech:

Work Order, Lot, Sample Date	Total Amt /Unit	Total Acidified/Unit	Initial Aliquot Amt/Unit	Adj Aliq Amt (Un-Acidified)	QC Tracer Prep Date	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:

```
     Uncert Level (#s).: 2     Decay to SaDt: Y     Blk Subt.: N     Sci.Not.: Y     ODRs: B
JAE671AD-MS:
     Uncert Level (#s).: 2     Decay to SaDt: Y     Blk Subt.: N     Sci.Not.: Y     ODRs: B
JAK2Q1AA-BLK:
     Uncert Level (#s).: 2     Decay to SaDt: Y     Blk Subt.: N     Sci.Not.: Y     ODRs: B
JAK2Q1AC-LCS:
     Uncert Level (#s).: 2     Decay to SaDt: Y     Blk Subt.: N     Sci.Not.: Y     ODRs: B
JAK2Q1AD-IBLK:
     Uncert Level (#s).: 2     Decay to SaDt: Y     Blk Subt.: N     Sci.Not.: Y     ODRs: B
JAK2Q1AE-IBLK:
     Uncert Level (#s).: 2     Decay to SaDt: Y     Blk Subt.: N     Sci.Not.: Y     ODRs: B
```

Approved By _____ Date: _____

8/29/2006 4:36:51 PM

ICOC Fraction Transfer/Status Report

ByDate: 8/29/2005, 9/3/2006, Batch: '6215539', User: *ALL Order By DateTimeAccepting

Q	Batch	Work Ord	CurStatus	Accepting			Comments
6215539							
AC			**CalcC**	**DillonM**	8/23/2006 12:18:00		
SC				wagarr	IsBatched	8/3/2006 1:40:44 PM	ICOC_RADCALC v4.8.24
SC				DillonM	InPrep	8/23/2006 12:18:00 PM	RICH-RC-5016 REVISION 6
SC				DillonM	Prep1C	8/23/2006 2:57:32 PM	RICH-RC-5016 REVISION 6
SC				AndersonE	Sep1C	8/25/2006 11:51:04 AM	RICH-RC-5065 REV5
SC				StringerR	InCnt1	8/25/2006 12:05:35 PM	RICH-RD-0001 REVISION 3
SC				StringerR	CalcC	8/26/2006 2:31:49 PM	RICH-RD-0001 REVISION 3
AC				**DillonM**	8/23/2006 2:57:32 PM		
AC				**AndersonE**	8/25/2006 11:51:04		
AC				**StringerR**	8/25/2006 12:05:35		
AC				**StringerR**	8/26/2006 2:31:49 PM		

AC: Accepting Entry; SC: Status Change

8/3/2006 1:39:37 PM

Sample Preparation/Analysis

384868, Pacific Northwest National Laboratory ,
Pacific Northwest National Lab

AR H-3 Prp/SepRC5007
S6 Tritium by Liquid Scint
5I CLIENT: HANFORD

AnalyDueDate: 09/15/2006 WO1971

Batch: 6215544 **WATER** **pCi/L** **PM, Quote: HC , 57671**

SEQ Batch, Test: None

Balance Id:

Pipet #: _____

Sep1 DT/Tm Tech:

Sep2 DT/Tm Tech:

Prep Tech:

Work Order, Lot, Sample DateTime	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
1 JAE5J-1-AA								
J6H010297-1-SAMP								
08/01/2006 11:52	AmtRec: 20ML,500ML,LP	#Containers: 3				Scr:	Alpha:	Beta:
2 JAE53-1-AA								
J6H010299-1-SAMP								
07/26/2006 08:38	AmtRec: 20ML,2XLP	#Containers: 3				Scr:	Alpha:	Beta:
3 JAE59-1-AA								
J6H010301-1-SAMP								
08/01/2006 09:31	AmtRec: 20ML,500ML,LP	#Containers: 3				Scr:	Alpha:	Beta:
4 JAE6C-1-AA								
J6H010301-2-SAMP								
08/01/2006 10:56	AmtRec: 20ML,500ML,LP	#Containers: 3				Scr:	Alpha:	Beta:
5 JAE6D-1-AA								
J6H010301-3-SAMP								
08/01/2006 12:16	AmtRec: 20ML,500ML,LP,2X4LP	#Containers: 5				Scr:	Alpha:	Beta:
6 JAE6K-1-AA								
J6H010301-4-SAMP								
08/01/2006 11:16	AmtRec: 20ML,500ML,LP,2X4LP	#Containers: 5				Scr:	Alpha:	Beta:
7 JAE6R-1-AE								
J6H010301-5-SAMP								
08/01/2006 10:19	AmtRec: 20ML,500ML,LP,2X4LP	#Containers: 5				Scr:	Alpha:	Beta:

Sample Preparation/Analysis

384868, Pacific Northwest National Laboratory ,
Pacific Northwest National Lab

AR H-3 Prp/SepRC5007
S6 Tritium by Liquid Scint
5I CLIENT: HANFORD

Balance Id:
Pipet #: _____

AnalyDueDate: 09/15/2006

Sep1 DT/Tm Tech:

Batch: 6215544 **WATER** **pCi/L** **PM, Quote: HC , 57671**

SEQ Batch, Test: None

Sep2 DT/Tm Tech:

Prep Tech:

Work Order, Lot, Sample DateTime	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
8 JAE6T-1-AA J6H010301-6-SAMP 08/01/2006 09:15		AmtRec: 20ML,500ML,LP,2X4LP	#Containers: 5			Scr:	Alpha:	Beta:
9 JAE6W-1-AA J6H010303-1-SAMP 07/26/2006 09:47	Warm Sample use Caution	AmtRec: 20ML,8XLP	#Containers: 9			Scr:	Alpha:	Beta:
10 JAE6X-1-AA J6H010303-2-SAMP 07/26/2006 10:22		AmtRec: 20ML,8XLP	#Containers: 9			Scr:	Alpha:	Beta:
11 JAE61-1-AA J6H010305-1-SAMP 08/01/2006 09:57		AmtRec: 20ML,500MLP,LP,2X4LP	#Containers: 5			Scr:	Alpha:	Beta:
12 JAE61-1-AE-X J6H010305-1-DUP 08/01/2006 09:57		AmtRec: 20ML,500MLP,LP,2X4LP	#Containers: 5			Scr:	Alpha:	Beta:
13 JAE67-1-AA J6H010307-1-SAMP 08/01/2006 10:37		AmtRec: 20ML,500ML,LP	#Containers: 3			Scr:	Alpha:	Beta:
14 JAGEM-1-AA J6H010305-2-SAMP 08/01/2006 11:07		AmtRec: 20ML,500MLP,LP,2X4LP	#Containers: 5			Scr:	Alpha:	Beta:

Sample Preparation/Analysis

AR H-3 Prp/SepRC5007
S6 Tritium by Liquid Scint
5I CLIENT: HANFORD

Balance Id:

Pipet #: _____

Sep1 DT/Tm Tech:

Sep2 DT/Tm Tech:

Prep Tech:

AnalyDueDate: 09/15/2006

Batch: 6215544 **pCi/L**
SEQ Batch, Test: None

Work Order, Lot, Sample DateTime	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
15 JAK2V-1-AA-B J6H030000-544-BLK 08/01/2006 09:57	AmtRec:	#Containers: 1				Scr:	Alpha:	Beta:
16 JAK2V-1-AC-C J6H030000-544-LCS 08/01/2006 09:57	AmtRec:	#Containers: 1				Scr:	Alpha:	Beta:
17 JAK2V-1-AD-BX J6H030000-544-MBLK 08/01/2006 09:57	AmtRec:	#Containers: 1				Scr:	Alpha:	Beta:
18 JAK2V-1-AE-CM J6H030000-544-MLCS 08/01/2006 09:57	AmtRec:	#Containers: 1				Scr:	Alpha:	Beta:
19 JAK2V-1-AF-BN J6H030000-544-IBLK 08/01/2006 09:57	AmtRec:	#Containers: 1				Scr:	Alpha:	Beta:
20 JAK2V-1-AG-BN J6H030000-544-IBLK 08/01/2006 09:57	AmtRec:	#Containers: 1				Scr:	Alpha:	Beta:
21 JAK2V-1-AH-BN J6H030000-544-IBLK 08/01/2006 09:57	AmtRec:	#Containers: 1				Scr:	Alpha:	Beta:

Sample Preparation/Analysis

AR H-3 Prp/SepRC5007
S6 Tritium by Liquid Scint
5I CLIENT: HANFORD

Balance Id:

Pipet #: _____

Sep1 DT/Tm Tech:

Sep2 DT/Tm Tech:

Prep Tech:

AnalyDueDate: 09/15/2006

Batch: 6215544 **pCi/L**
SEQ Batch, Test: None

Work Order, Lot, Sample DateTime	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:

Comments:

All Clients for Batch:
384868, Pacific Northwest National Laboratory Pacific Northwest National Lab, HC , 57671

JAE5J1AA-SAMP Constituent List:

H-3	RDL:400	pCi/L	LCL:70	UCL:130	RPD:20

JAK2V1AA-BLK:

H-3	RDL:400	pCi/L	LCL:	UCL:	RPD:

JAK2V1AC-LCS:

H-3	RDL:400	pCi/L	LCL:70	UCL:130	RPD:20

JAK2V1AD-MBLK:

H-3	RDL:400	pCi/L	LCL:	UCL:	RPD:

JAK2V1AE-MLCS:

H-3	RDL:400	pCi/L	LCL:70	UCL:130	RPD:20

JAK2V1AF-IBLK:

H-3	RDL:400	pCi/L	LCL:	UCL:	RPD:

JAK2V1AG-IBLK:

H-3	RDL:400	pCi/L	LCL:	UCL:	RPD:

JAK2V1AH-IBLK:

H-3	RDL:400	pCi/L	LCL:	UCL:	RPD:

JAE5J1AA-SAMP Calc Info:

Uncert Level (#s).: 2	Decay to SaDt: Y	Blk Subt.: N	Sci.Not.: Y	ODRs: B

JAK2V1AA-BLK:

Uncert Level (#s).: 2	Decay to SaDt: Y	Blk Subt.: N	Sci.Not.: Y	ODRs: B

JAK2V1AC-LCS:

Uncert Level (#s).: 2	Decay to SaDt: Y	Blk Subt.: N	Sci.Not.: Y	ODRs: B

JAK2V1AD-MBLK:

Uncert Level (#s).: 2	Decay to SaDt: Y	Blk Subt.: N	Sci.Not.: Y	ODRs: B

JAK2V1AE-MLCS:

Uncert Level (#s).: 2	Decay to SaDt: Y	Blk Subt.: N	Sci.Not.: Y	ODRs: B

JAK2V1AF-IBLK:

Uncert Level (#s).: 2	Decay to SaDt: Y	Blk Subt.: N	Sci.Not.: Y	ODRs: B

JAK2V1AG-IBLK:

Uncert Level (#s).: 2	Decay to SaDt: Y	Blk Subt.: N	Sci.Not.: Y	ODRs: B

JAK2V1AH-IBLK:

Uncert Level (#s).: 2	Decay to SaDt: Y	Blk Subt.: N	Sci.Not.: Y	ODRs: B

Sample Preparation/Analysis

AR H-3 Prp/SepRC5007
S6 Tritium by Liquid Scint
5I CLIENT: HANFORD

Balance Id:

Pipet #: _____

Sep1 DT/Tm Tech:

Sep2 DT/Tm Tech:

Prep Tech:

AnalyDueDate: 09/15/2006

Batch: 6215544 **pCi/L**
SEQ Batch, Test: None

Work Order, Lot, Sample DateTime	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:

Approved By _____ **Date:** _____

ICOC Fraction Transfer/Status Report

ByDate: 8/21/2005, 8/26/2006, Batch: '6215544', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting			Comments
6215544						
AC		**CalcC**	**McDowellD**	8/16/2006 10:23:19		
SC			wagarr	IsBatched	8/3/2006 1:40:44 PM	ICOC_RADCALC v4.8.24
SC			McDowellD	InSep1	8/16/2006 10:23:19 AM	RICH-RC-5007 REVISION 6
SC			McDowellD	Sep1C	8/16/2006 3:45:49 PM	RICH-RC-5007 REVISION 6
SC			DAWKINSO	InCnt1	8/16/2006 4:43:02 PM	RICH-RD-0001 REVISION 3
SC			StringerR	CalcC	8/18/2006 12:32:07 PM	RICH-RD-0001 REVISION 3
AC			**McDowellD**	8/16/2006 3:45:49 PM		
AC			**DAWKINSO**	8/16/2006 4:43:02 PM		
AC			**StringerR**	8/18/2006 12:32:07		

AC: Accepting Entry; SC: Status Change

SEVERN TRENT STL

*** RE-ANALYSIS REQUEST ***

DUE DATE 9/8/06

CUSTOMER PGW

ANALYSIS Unat

MATRIX water

LOT NUMBER J6G260132

SAMPLE DELIVERY GROUP W0U971

OLD BATCH NUMBER 6215548

NEW BATCH NUMBER 6237250

LAB SAMPLE ID	REASON FOR REQUEST & ANALYSIS COMMENTS
1) all	blank at CRDL
2)	
3)	
4)	
5)	
6)	
7)	
8)	
9)	
10)	
11)	
12)	
13)	
14)	
15)	
16)	
17)	
18)	
19)	
20)	
LAB QC ID	Assigned with new batch.

8/28/2006 8:22:22 AM

Sample Preparation/Analysis

Balance Id:206113

384868, Pacific Northwest National Laboratory , Pacific Northwest National Lab

DH UNat_Laser PrpRC5015
SS Total Uranium by KPA
5I CLIENT: HANFORD

Pipet #: 242

AnalyDueDate: 09/08/2006 WO 4971

Sep1 DT/Tm Tech:

Batch: 6237250 WATER ug/L
SEQ Batch, Test: None

PM, Quote: HC , 57671

Sep2 DT/Tm Tech:

Prep Tech: ,DillonM

Work Order, Lot, Sample DateTime	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
1 H91MC-2-AA J6G260132-1-SAMP 07/25/2006 10:01	Anal Vol 100ml	25.00g,in AmtRec: 20ML,500MLP	#Containers: 2			Scr:	Alpha: 6.42E-05 uCi/Sa	Beta: 2.39E-05 uCi/Sa
2 H91MC-2-AC-X J6G260132-1-DUP 07/25/2006 10:01		25.10g,in AmtRec: 20ML,500MLP	#Containers: 2			Scr:	Alpha: 6.42E-05 uCi/Sa	Beta: 2.39E-05 uCi/Sa
3 H91MR-2-AA J6G260132-2-SAMP 07/25/2006 11:20		25.10g,in AmtRec: 20ML,500MLP	#Containers: 2			Scr:	Alpha: -8.63E-05 uCi/Sa	Beta: 3.76E-04 uCi/Sa 1.2E-01L
4 H91MR-2-AC-S J6G260132-2-MS 07/25/2006 11:20		25.30g,in AmtRec: 20ML,500MLP	UNSF3271 07/27/06,pd 03/22/05,r #Containers: 2			Scr:	Alpha: -8.63E-05 uCi/Sa	Beta: 3.76E-04 uCi/Sa 1.2E-01L
5 JAC4R-2-AA J6G310193-1-SAMP 07/31/2006 12:01		24.80g,in AmtRec: 20ML,500MLP	#Containers: 2			Scr:	Alpha: 2.49E-05 uCi/Sa	Beta: 5.07E-05 uCi/Sa
6 JAC4T-2-AA J6G310193-2-SAMP 07/31/2006 13:25		25.10g,in AmtRec: 20ML,500MLP	#Containers: 2			Scr:	Alpha: -1.46E-04 uCi/Sa	Beta: 4.57E-04 uCi/Sa 9.8E-02L
7 JAE65-2-AC J6H010306-1-SAMP 08/01/2006 13:07		25.50g,in AmtRec: 20ML,500ML,2X4LP	#Containers: 4			Scr:	Alpha: 4.54E-04 uCi/Sa	Beta: 2.77E-03 uCi/Sa

8/28/2006 8:22:24 AM

Sample Preparation/Analysis

Balance Id:206113

384868, Pacific Northwest National Laboratory , Pacific Northwest National Lab

DH UNat_Laser PrpRC5015
SS Total Uranium by KPA
5I CLIENT: HANFORD

Pipet #: 242

AnalyDueDate: 09/08/2006

Sep1 DT/Tm Tech:

Batch: 6237250 **WATER** **ug/L**

PM, Quote: HC , 57671

Sep2 DT/Tm Tech:

SEQ Batch, Test: None

Prep Tech: ,DillonM

Work Order, Lot, Sample DateTime	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
8 JAE66-2-AC J6H010306-2-SAMP 08/01/2006 13:07	Final Vol 10.0ml	25.40g,in AmtRec: 20ML,500ML,2X4LP	#Containers: 4	Scr:	Alpha: 6.67E-04 uCi/Sa	Beta: 4.39E-04 uCi/Sa		
9 JAK3H-2-AA-B J6H030000-548-BLK 07/25/2006 10:01		25.10g,in AmtRec:	#Containers: 1	Scr:	Alpha:	Beta:		
10 JAK3H-2-AC-C J6H030000-548-LCS 07/25/2006 10:01		25.20g,in AmtRec:	UNSF3272 07/27/06,pd 03/22/05,r #Containers: 1	Scr:	Alpha:	Beta:		
11 JAK3H-2-AD-C J6H030000-548-LCS 07/25/2006 10:01		25.10g,in AmtRec:	UNSC1275 08/10/06,pd 04/28/06,r #Containers: 1	Scr:	Alpha:	Beta:		

Comments: pH < 2.0 mp 8/28/06

All Clients for Batch:
384868, Pacific Northwest National Laboratory Pacific Northwest National Lab, HC , 57671

H91MC2AA-SAMP Constituent List:

Uranium	RDL:1.44E-01	ug/L	LCL:	UCL:	RPD:

H91MR2AC-MS:

JAK3H2AA-BLK:

Uranium	RDL:0.144343	ug/L	LCL:	UCL:	RPD:

JAK3H2AC-LCS:

Uranium	RDL:0.144343	ug/L	LCL:70	UCL:130	RPD:20

Sample Preparation/Analysis

DH UNat_Laser PrpRC5015
SS Total Uranium by KPA
5I CLIENT: HANFORD

Balance Id:206113

Pipet #: _____

AnalyDueDate: 09/08/2006

Sep1 DT/Tm Tech:

Batch: 6237250 ug/L

SEQ Batch, Test: None

Sep2 DT/Tm Tech:

Prep Tech: ,DillonM

Work Order, Lot, Sample DateTime	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:

JAK3H2AD-LCS:
Uranium RDL:0.144343 ug/L LCL:70 UCL:130 RPD:20

H91MC2AA-SAMP Calc Info:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

H91MR2AC-MS:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

JAK3H2AA-BLK:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

JAK3H2AC-LCS:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

JAK3H2AD-LCS:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

Approved By _____ Date: _____

ICOC Fraction Transfer/Status Report

ByDate: 9/6/2005, 9/11/2006, Batch: '6237250', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting			Comments
6237250						
AC		**Cnt1C**	**DillonM**	8/28/2006 8:09:18		
SC			antonsonl	IsBatched	8/25/2006 9:55:36 AM	ICOC_RADCALC v4.8.24
SC			DillonM	InPrep	8/28/2006 8:09:18 AM	RICH-RC-5015 REVISION 4
SC			DillonM	Prep1C	8/28/2006 9:55:55 AM	RICH-RC-5015 REVISION 4
SC			BarbosaH	Cnt1C	9/5/2006 2:20:29 PM	RICH-RC-5058 REVISION 7
AC			**DillonM**	8/28/2006 9:55:55		
AC			**BarbosaH**	9/5/2006 2:20:29 PM		

AC: Accepting Entry; SC: Status Change